Service Manual

ViewSonic VP912s/b

Model No. VLCDS25973-4W/5W

19” Color TFT LCD Display

(VP912s/b_SM_902 Rev. 1b Mar. 2005)

ViewSonic® 381 Brea Canyon Road, Walnut, California 91789 USA - (800) 888-8583

Copyright

Copyright © 2005 by ViewSonic Corporation. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of ViewSonic Corporation.

Disclaimer

ViewSonic makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranty of merchantability or fitness for any particular purpose. Further, ViewSonic reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation of ViewSonic to notify any person of such revision or changes.

Trademarks

Optiquest is a registered trademark of ViewSonic Corporation.
ViewSonic is a registered trademark of ViewSonic Corporation.
All other trademarks used within this document are the property of their respective owners.

Revision History

Revision	SM Editing Date	Documents Number		Description of Changes	Editor
		DCN Number	ECR Number		
1a	08/26/04	4644		Initial Release	A. Lu
1b	03/04/05	5005	4819	Panel Change from AUO M190EN04 V1(12ms) to AUO M190EN04 V4 (12ms), Scaler GM5120	A. Lu

TABLE OF CONTENTS

1.	Precautions and Safety Notices	1
2.	Specification	5
3.	Front Panel Function Control Description	8
4.	Circuit Description	15
5.	Adjustment Procedure	18
6.	Troubleshooting Flow Chart	42
7.	Recommended Spare Parts List	46
8.	Exploded Diagram and Spare Parts List	56
9.	Block Diagram	71
10.	Schematic Diagrams	72
11.	PCB Layout Diagrams	78

1. Precautions and Safety Notices

1. Appropriate Operation

(1) Turn off the product before cleaning.
(2) Use only a dry soft cloth when cleaning the LCD panel surface.
(3) Use a soft cloth soaked with mild detergent to clean the display housing.
(4) Use only a high quality, safety approved AC/DC power cord.
(5) Disconnect the power plug from the AC outlet if the product will not be used for a long period of time.
(6) If smoke, abnormal noise, or strange odor is present, immediately switch the LCD display off.
(7) Do not touch the LCD panel surface with sharp or hard objects.
(8) Do not place heavy objects on the LCD display, video cable, or power cord.
(9) Do not use abrasive cleaners, waxes or solvents for your cleaning.
(10) Do not operate the product under the following conditions:
- Extremely hot, cold or humid environment.
- Areas containing excessive dust and dirt.
- Near any appliance generating a strong magnetic field.
- In direct sunlight.

2. Caution

No modification of any circuit should be attempted. Service work should only be performed after you are thoroughly familiar with all of the following safety checks and servicing guidelines.

3. Safety Check

Care should be taken while servicing this LCD display. Because of the high voltage used in the inverter circuit, the voltage is exposed in such areas as the associated transformer circuits.

4. LCD Module Handling Precautions

4.1 Handling Precautions

(1) Since front polarizer is easily damaged, pay attention not to scratch it.
(2) Be sure to turn off power supply when connecting or disconnecting input connector.
(3) Wipe off water drops immediately. Long contact with water may cause discoloration or spots.
(4) When the panel surface is soiled, wipe it with absorbent cotton or other soft cloth.
(5) Since the panel is made of glass, it may break or crack if dropped or bumped on hard surface.
(6) Since CMOS LSI is used in this module, take care of static electricity and ensure human earth when handling.
(7) Do not open or modify the Module Assembly.
(8) Do not press the reflector sheet at the back of the module in any direction.
(9) In the event that a Module must be put back into the packing container slot after it was taken out of the container, do not press the center of the CCFL Reflector edge. Instead, press at the far ends of the CFL Reflector edge softly. Otherwise the TFT Module may be damaged.
(10) At the insertion or removal of the Signal Interface Connector, be sure not to rotate or tilt the Interface Connector of the TFT Module.

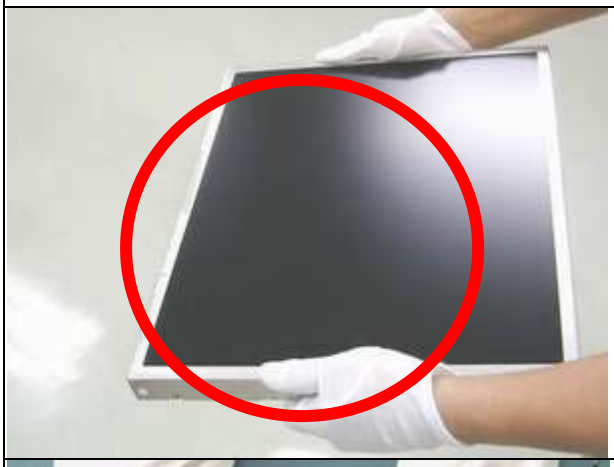
(11) After installation of the TFT Module into an enclosure (LCD monitor housing, for example), do not twist or bend the TFT Module even momentarily. When designing the enclosure, it should be taken into consideration that no bending/twisting forces may be applied to the TFT Module from outside. Otherwise the TFT Module may be damaged.

(12) The cold cathode fluorescent lamp in the LCD contains a small amount of mercury. Please follow local ordinances or regulations for disposal.

(13) The LCD module contains a small amount of materials having no flammability grade. The LCD module should be supplied with power that complies with the requirements of Limited Power Source (IEC60950 or UL1950), or an exemption should be applied for.

(14) The LCD module is designed so that the CCFL in it is supplied by a Limited Current Circuit (IEC60950 or UL1950). Do not connect the CCFL to a Hazardous Voltage Circuit.

5. Handling Methods

Correct Methods:	Incorrect Methods:
Only touch the metal frame of the LCD panel or the front cover of the monitor. Do not touch the surface of the polarizer.	If the surface of the LCD panel is pressed by fingers, that may cause "MURA."
	
Take out the monitor by grasping the cushions.	If the monitor is removed by grasping the LCD panel, that may cause "MURA."

Place the monitor on a clean and soft foam pad.	If the monitor is placed on foreign objects, that could scratch the surface of the panel or cause "MURA."
	If the panel is placed facedown on the lap, that may cause "MURA."

2. Specification

1. General Requirements

General Specifications

Test Resolution & Frequency	1280x1024 @ 60Hz
Test Image Size	Full Size
Contrast and Brightness Controls	Factory Default: Contrast = 50%, Brightness = 100%

2. Signal Interface

Video Interface

Input Connector 1 (Analog 1)	DB-15 (Analog)
Input Connector 2 (Analog 2)	DB-15 (Analog)
Digital Input Connector	DVI-I (Digital)
Default Input Connector	Defaults to the first detected input
Video Cable Connector DB-15 Pin out	Compliant DDC 2B
Video Signals	1. Video RGB (Analog) Separate, Composite, and Sync on Green 2. TMDS (Digital)
Video Impedance	75 Ohms (Analog), 100 Ohms (Digital)
Exclusions	Not compatible with interlaced video

3. Power

Power Supply

Internal Power Supply	Primary : LSE0204A1250 2nd source: Tiger power TOF 5001
Input Voltage Range	90 to 264 VAC
Over Current Protection	7.0 A typical at 12.0 VDC
Power Dissipation	50 Watts (typ.)

4. Electrical Requirements

Horizontal / Vertical Frequency

Horizontal Frequency	24 – 82 KHz
Vertical Refresh Rate	50 – 85* HZ. FOR RESOLUTION 1280 X 1024, THE VERTICAL RFRESH RATE UP TO 75 HZ; FOR THE REST RESOLUTIONS, THE VERTICAL REFRESH RATE UP TO 85HZ
Maximum Pixel Clock	135 MHz
Primary Presets	1280x1024 @ 60Hz
Look up table timing	
<<Analog>> 640 x 350 @ 70Hz, 31.5kHz 640 x 400 @ 60Hz, 31.5kHz 640 x 400 @ 70Hz, 31.5kHz 640 x 480 @ 50Hz, 24.7kHz 640 x 480 @ 60Hz, 31.5kHz 640 x 480 @ 67Hz, 35.0kHz 640 x 480 @ 72Hz, 37.9kHz 640 x 480 @ 75Hz, 37.5kHz 640 x 480 @ 85Hz, 43.27kHz 720 x 400 @ 70Hz, 31.5kHz 800 x 600 @ 56Hz, 35.1kHz 800 x 600 @ 60Hz, 37.9kHz 800 x 600 @ 75Hz, 46.9kHz 800 x 600 @ 72Hz, 48.1kHz 800 x 600 @ 85Hz, 53.7kHz 832 x 624 @ 75Hz, 49.7kHz 1024 x 768 @ 60Hz, 48.4kHz 1024 x 768 @ 70Hz, 56.5kHz 1024 x 768 @ 72Hz, 58.1kHz 1024 x 768 @ 75Hz, 60.0kHz 1024 x 768 @ 85Hz, 68.67kHz 1152 x 864 @ 75Hz, 67.5kHz 1152 x 870 @ 75Hz, 68.7kHz 1280 x 1024 @ 60Hz, 63.4kHz 1280 x 1024 @ 75Hz, 79.97kHz 1280x 720 @ 60Hz, 45kHz (HDTV)	<<Digital>> 640 x 350 @ 70Hz, 31.5kHz 640 x 400 @ 60Hz, 31.5kHz 640 x 400 @ 70Hz, 31.5kHz 640 x 480 @ 50Hz, 24.7kHz 640 x 480 @ 60Hz, 31.5kHz 640 x 480 @ 67Hz, 35.0kHz 640 x 480 @ 72Hz, 37.9kHz 640 x 480 @ 75Hz, 37.5kHz 640 x 480 @ 85Hz, 43.27kHz 720 x 400 @ 70Hz, 31.5kHz 800 x 600 @ 56Hz, 35.1kHz 800 x 600 @ 60Hz, 37.9kHz 800 x 600 @ 75Hz, 46.9kHz 800 x 600 @ 72Hz, 48.1kHz 800 x 600 @ 85Hz, 53.7kHz 832 x 624 @ 75Hz, 49.7kHz 1024 x 768 @ 60Hz, 48.4kHz 1024 x 768 @ 70Hz, 56.5kHz 1024 x 768 @ 72Hz, 58.1kHz 1024 x 768 @ 75Hz, 60.0kHz 1024 x 768 @ 85Hz, 68.67kHz 1152 x 864 @ 75Hz, 67.5kHz 1152 x 870 @ 75Hz, 68.7kHz 1280 x 1024 @ 60Hz, 63.4kHz 1280 x 1024 @ 75Hz, 79.97kHz 1280x 720 @ 60Hz, 45kHz (HDTV)

Changing Modes

● Maximum Mode Change Blank Time for image stability : 3 seconds (Max), excluding "Auto Adjust" time ● Under DOS mode (640 x 350, 720 x 400 & 640 x 400), it should recall factory setting when execute "Auto Adjust" by "0-Touch™"	● The monitor needs to do "Auto Adjust" the first time a new mode is detected (see section "0-Touch™ Function Actions") ● While running Change Mode, Auto Adjust or Memory Recall, the image shall blank

5. LCD Panel

Panel Characteristics

Model number	AUO M190EN04
Type	TN type with LVDS interface
Active Size	376.32 (H) x 301.06 (V)
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.294 mm
GLASS TREATMENT	Anti Glare (Hard coating 2H)
# OF BACKLIGHTS	4 CCFL edge-light (2 top / 2 bottom)
BACKLIGHT LIFE	50,000 (Typ) / 40,000 Hours (Min)
Luminance (Center) – CT = 6500K Contrast/ Brightness = Max	400 cd/m2 (Typ after 30 minute warm up) 350 cd/m2 (Min after 30 minute warm up)
Brightness Uniformity	75% (Typ) / 70% (Min) Entire Area
Contrast Ratio	450:1 (typ), 250:1 (min)
Color Depth	16 million colors (6+2 bit)
Viewing Angle (Horizontal, CR>10)	Minimum: 130º (±65º) Typical: 135º (+70º/-65º)
Viewing Angle (Vertical, @ CR>10)	Minimum: 125º (+65º/-60º)
Response Time 10%-90% @ Ta=25°C	12 ms (Tr= 3.6 ms, Tf = 8.4 ms) (typ) 21 ms (Tr= 6.3 ms, Tf = 14.7 ms) (max)

6. Mechanical

Dimensions

Width	416 mm (16.4 inch)
Height	460 mm (18.1 inch)
Depth	238 mm (9.4 inch)
Monitor Weight	7.5 kg / 16.5 lbs

Ergonomics

Tilt Up	From 0º up to ≧20º+/-2º
Tilt Down	From 0º down to -3º ~ -5 º

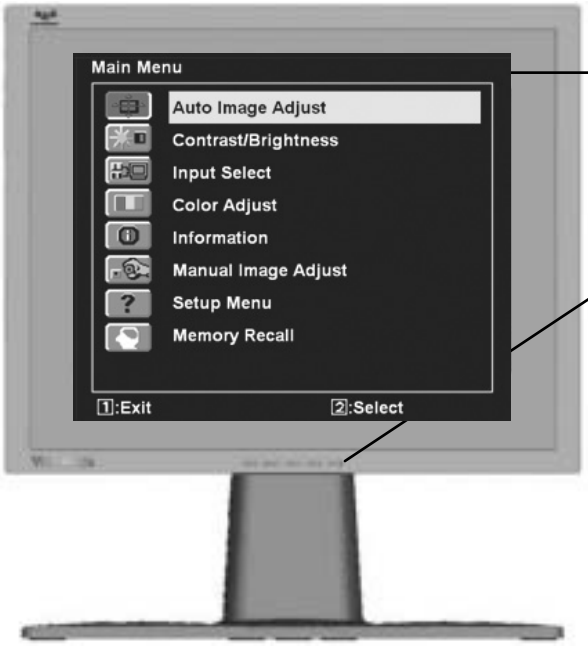
7. Environmental

Environmental Conditions

Operating Temperature	0°C to +40°C
Storage Temperature	-20°C to +60°C
Operating Relative Humidity	20% to 90% RH Non-Condensing
Storage Relative Humidity	5% to 90% RH Non-Condensing
Operating Altitude	0 to +3,000 meters
Storage Altitude	0 to +12,000 meters

3. Front Panel Function Control Description

Use the buttons on the front control panel to display and adjust the OnView® controls which display on the screen. The OnView controls are explained at the top of the next page.



Main Menu
with OnView controls

Front Control Panel shown below in detail

Scrolls through menu options and adjusts the displayed control.

Also a shortcut to display the Contrast adjustment control screen.

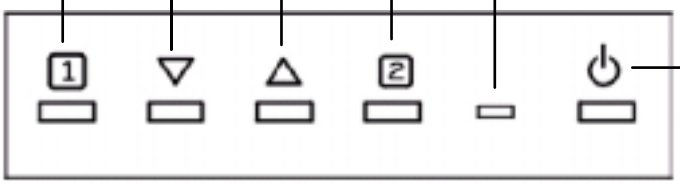
Displays the control screen for the highlighted control.

Also toggles between two controls on some screens.

Also a shortcut to toggle analog and digital connection.

Displays the Main Menu or exits the control screen and saves adjustments.

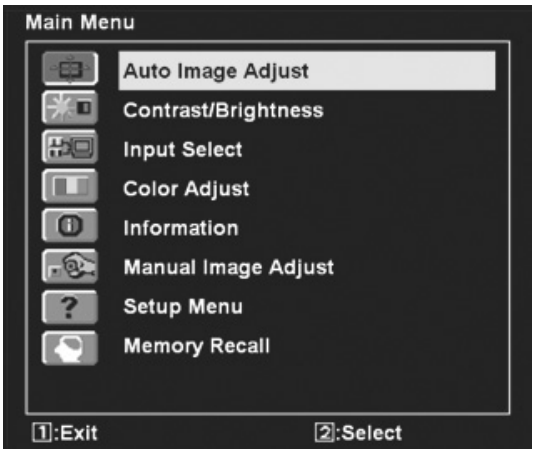
Power light
Green = ON
Orange = Power Saving



Power
On/Off

Do the following to adjust the screen image:

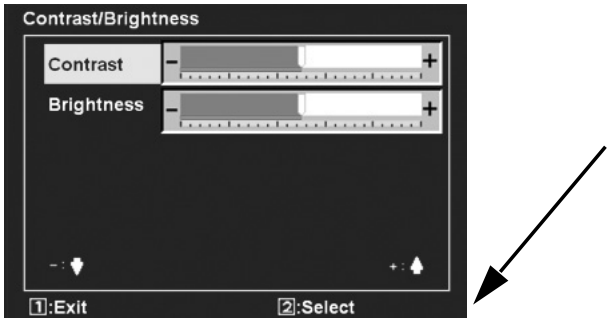
1 To display the Main Menu, press button [1].



NOTE: All OnView menus and adjustment screens disappear automatically after about 30 seconds. This time period is adjustable through the Setup menu and the OSD timeout control described on page 10.

2 To select a control to be adjusted, press ▲ or ▼ to scroll up or down in the Main Menu.

3 To select the highlighted control, press button [2]. A control screen appears like the example shown below.



The line at the bottom of the screen shows the current functions of buttons 1 and 2: in this example, either EXIT or select the BRIGHTNESS control.

4 To adjust the control, press the up ▲ or down ▼ buttons.

5 To save the adjustments and exit the menu, press button [1] *twice*.

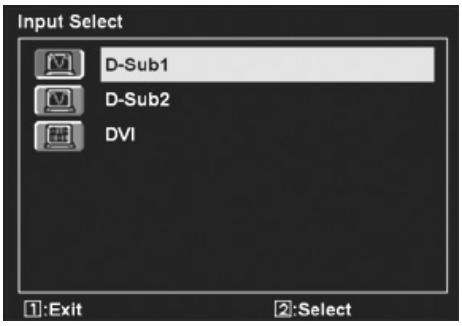
The following tips may help you optimize your display:

- Adjust your computer's graphic card so that it outputs a video signal 1280 x 1024 @ 60Hz to the LCD display. (Look for instructions on "changing the refresh rate" in your graphic card's user guide.)
- If necessary, make small adjustments using H POSITION and V POSITION until the screen image is completely visible. (The black border around the edge of the screen should barely touch the illuminated "active area" of the LCD display.)

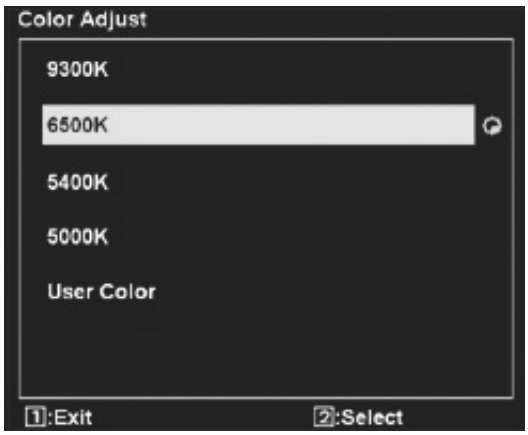
Main Menu Controls

Adjust the menu items shown below by using the up ▲ and down ▼ buttons.

Control	Explanation
	Auto Image Adjust sizes and centers the screen image automatically.
	Contrast adjusts the difference between the image background (black level) and the foreground (white level).
	Brightness adjusts background black level of the screen image.
	Input Select toggles between inputs if you have more than one computer connected to the VP912b/VP912s.



Color Adjust provides several color adjustment modes: preset color temperatures and **RGB** which allows you to adjust red (**R**), green (**G**), and blue (**B**) separately. The factory setting for this product is 6500K (6500 Kelvin).



9300K — Adds blue to the screen image for cooler white (used in most office settings with fluorescent lighting).

6500K — Adds red to the screen image for warmer white and richer red.

5400K — Adds green to the screen image for a darker color.

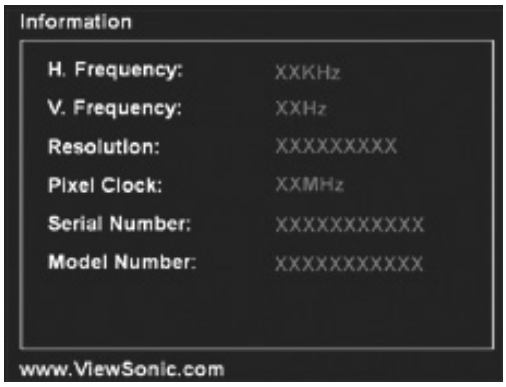
5000K — Adds blue and green to the screen image for a darker color.

User Color— Individual adjustments for red (R), green (G), and blue (B).

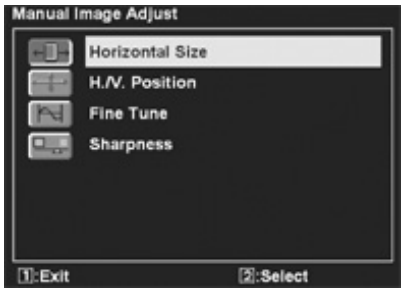
1 To select color (R, G or B) press button [2].
2 To adjust selected color, press ▲ or ▼.

Important: If you select RECALL from the Main Menu when the product is set to a Preset Timing Mode, colors return to the 6500K factory preset.

Information displays the timing mode (video signal input) coming from the graphics card in your computer, the LCD model number, the serial number, and the ViewSonic website URL. See your graphic card's user guide for instructions on changing the resolution and refresh rate (vertical frequency).
NOTE: VESA 1280 x 1024 @ 60Hz (recommended) means that the resolution is 1280 x 1024 and the refresh rate is 60 Hertz.



Manual Image Adjust Sub-menu



H. Size (Horizontal Size) adjusts the width of the screen image.

H./V. Position (Horizontal/Vertical Position) moves the screen image left or right and up or down.

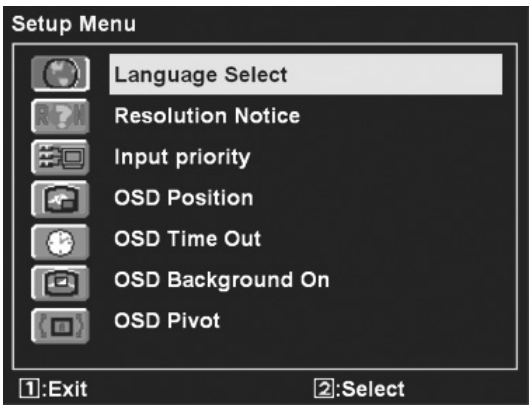
Control	Explanation

Fine Tune sharpens the focus by aligning the text and graphics with display pixels.

NOTE: Try Auto Image Adjust first.

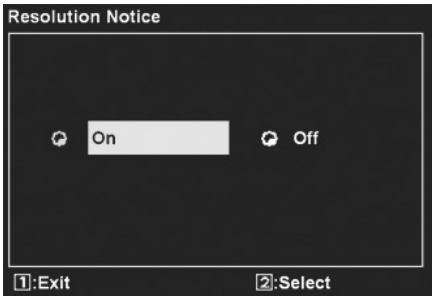
Sharpness adjusts the clarity and focus of the screen image.

Setup menu displays the menu shown below:

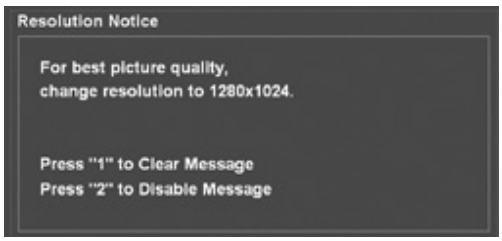


Language Select allows the user to choose the language used in the menus and control screens.

Resolution Notice allows you to enable or disable this notice.



If you enable the Resolution Notice shown above and your computer is set at a resolution other than 1280 x 1024, the following screen appears.


Resolution Notice
For best picture quality,
change resolution to 1280x1024.
Press "1" to Clear Message
Press "2" to Disable Message

Control	Explanation

Input Priority If multiple computers will be connected to the display, this function can be used to select which computer has priority.

The display will do a one time detection for available inputs when first powered on, and choose one depending on the selected input priority. For example: If the Input Priority setting is D-SUB1=>D-SUB2=>DVI, then the first priority will be given to D-SUB1 when the display turns on. If there is no video signal on D-SUB1, then the next priority will be given to D-SUB-2, etc… In the case when only one signal is present at the three inputs, then the display will automatically detect and display that signal.

The Input Priority setting can also be disabled. In this case, the input will return to the last active setting when the display is first turned on. The user will need to set all the port settings manually under this condition. Inputs can be switched quickly by pressing the "Up" arrow button on the front control panel.

OSD Position allows the user to move the on-screen display menus and control screens.

OSD Timeout sets the length of time the on-screen display screen is displayed. For example, with a “30 second” setting, if a control is not pushed within 30 seconds, the display screen disappears.

OSD Background On/Off allows the user to turn the On-Screen display background on or off.

OSD Pivot This function is used to rotate the OSD menu, when the display is changed from Landscape to Portrait mode.

Memory Recall returns the adjustments back to factory settings if the display is operating in a factory Preset Timing Mode listed in the Specifications of this manual.

Hot Keys for Function Controls

Buttons:	Functions:
[Up] or [Down] arrows	To immediately activate Contrast menu. It should be change to Brightness OSD by push button [2]
[Up] + [Down] arrows	Recall *Contrast* or *Brightness* while in the *Contrast* or *Brightness* adjustment, or recall both of *Contrast* and *Brightness* when the OSD is not on.
[1] + [2]	Toggle 720x400 and 640x400 mode when input 720x400 or 640x400 mode.
[1] + [Power On] **with signal**	*Factory Mode*
[1] + [Up] + [Down]	*White Balance*: shall enter *Factory Mode first. White Balance* should set the screen on the pure black and white pattern with 1280*1024@60Hz resolution.
[1] + [Down] (hold for 10 seconds)	*Power Lock (Unlock).* User won't be able to turn off the monitor.
[1] + [Up] (hold for 10 seconds)	*OSD Lock (Unlock).* It will lock all functions.
[Up] + [Down] + [Power On] **with signal** (Hold for 3 seconds. Release "Power" button first and then "Up" & "Down" buttons.)	*All Mode Reset.* It will erase all end users' settings and restore the factory defaults.
[Up] + [Down] + [Power On] **Without signal** (Hold for 3 seconds. Release "Power" button first and then "Up" & "Down" buttons.)	*Burn in Mode*. After entering *Burn in Mode*, press [1] button, you can find the information about this monitor.

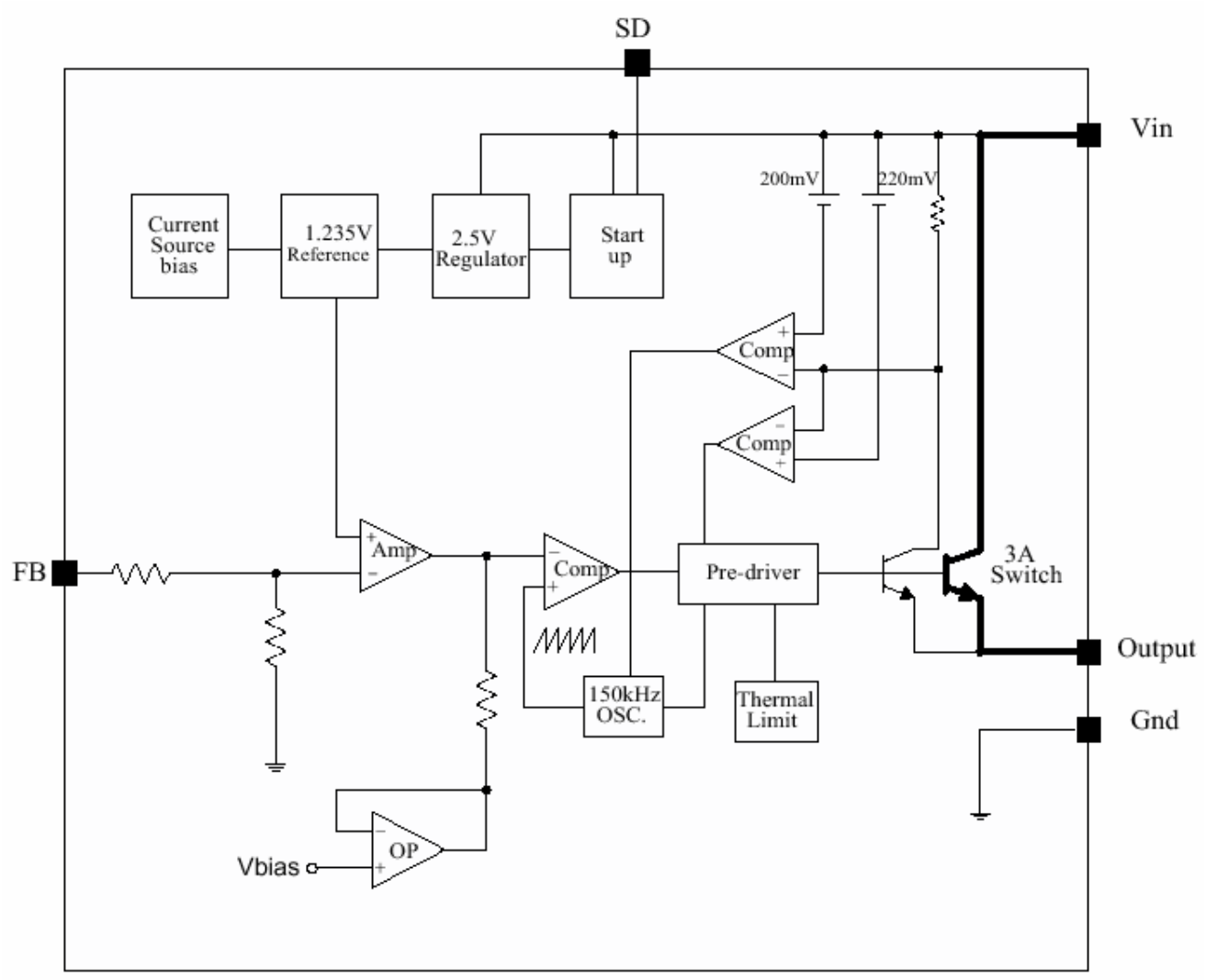
Remark: All the shortcut functions are only available while OSD is off.

4. Circuit Description

1. Power supply (DC/DC Converter)

The AP1501 is monolithic IC designed for M/B DC/DC converter, and owns the ability of driving a 3A load without any additional transistor component.

The AP1501 operates at a switching frequency of 150KHz and thus allows smaller-sized filter components than what would be needed with lower frequency switch regulator.



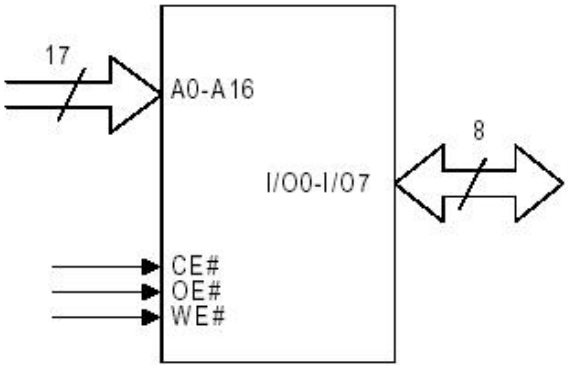
2. Flash Memory

The Pm39LV010R is a 1 Megabit, 3.3 Volt-only Flash Memory organized as 131,072 bytes of 8 bits each. This device is designed to use a 3.0 Volt to 3.6 Volt power supply to perform in-system programming.

The 1 Megabit memory array is divided into thirty-two uniform blocks of 4 Kbytes each for data and/or code storage.

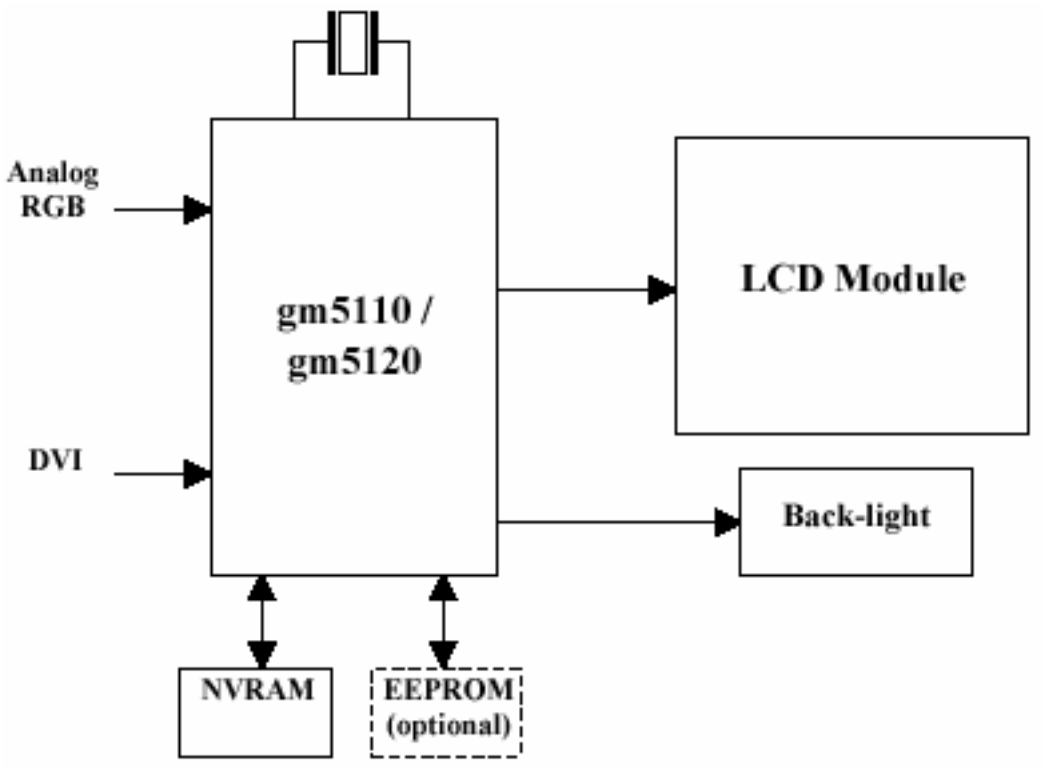
The block architecture allows users to flexibly make chip erase or block erase operation. The block erase feature allows a particular block to be erased and reprogrammed without affecting the data in other blocks. After the device performs chip erase or block erase operation, it can be reprogrammed on a byte-by-byte basis.

LOGIC SYMBOL



3. GM5120

The gm5110/20 is a graphic processing IC for Liquid Crystal Display (LCD) monitors at XGA/SXGA resolution. It provides all key IC functions required for the highest quality LCD monitors. On-chip functions include a high-speed triple-ADC and PLL, Ultra-Reliable DVI ™ receiver, a high quality zoom and shrink scaling engine, an on-screen display (OSD) controller, digital color controls and an on-chip microcontroller (OCM). With this level of integration, he gm5110/20 devices simplify and reduce the cost of LCD monitors while maintaining a high-degree of flexibility and quality.



gm5110/5120 System Design Example

4. LVDS (THC63LVDM83A)

The THC63LVDM83A transmitter converts 28 bits of CMOS/TTL data into LVDS (Low Voltage Differential Signaling) data stream. A phase-locked transmit clock is transmitted in parallel with the data streams over a fifth LVDS link. The HC63LVDM83A can be programmed for rising edge or falling edge clocks through a dedicated pin. The THC63LVDF84A receiver converts the LVDS data streams back into 28 bits of CMOS/TTL data with falling edge clock. At a transmit clock frequency of 85MHz, 24 bits of RGB data and 4 bits of LCD timing and control data (HSYNC, VSYNC, CNTL1, CNTL2) are transmitted at a rate of 595 Mbps per LVDS data channel.

5. Adjustment Procedure

1. Function Test

1.1 Product

- 19” LCD Monitor

1.2 Test Equipment

- Color Video Signal & Pattern (or PC with SXGA resolution)

1.3 Test Condition

Before function test and alignment, each LCD Monitor should be run-in and warmed up for at least 30 minutes with the following conditions:

(a) In room temperature,

(b) With full-white screen, RGB, and Black

(c) With cycled display modes,

640*480 (H=43.27KHz, V=85Hz)

800*600 (H=53.7KHz, V=85Hz)

1024*768 (H=68.67KHz, V=85Hz)

1280*1024 (H=79.97KHz, V=75Hz)

1.4 Test Display Modes & Pattern

1.4.1 Compatible Modes

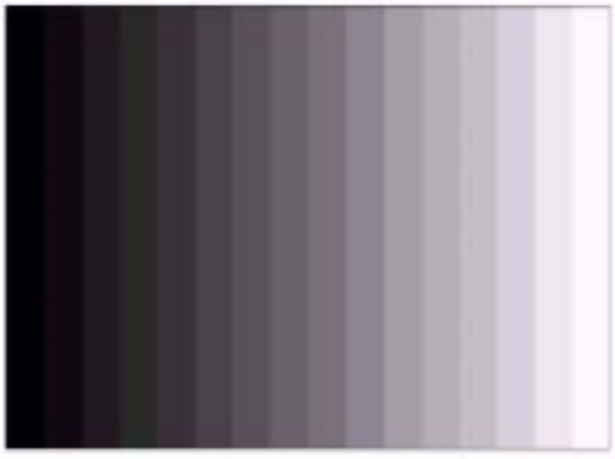
Analog	Digital
1. 640 x 350 @ 70Hz, 31.5kHz	640 x 350 @ 70Hz, 31.5kHz
2. 640 x 400 @ 60Hz, 31.5kHz	640 x 400 @ 60Hz, 31.5kHz
3. 640 x 400 @ 70Hz, 31.5kHz	640 x 400 @ 70Hz, 31.5kHz
4. 640 x 480 @ 50Hz, 24.7kHz	640 x 480 @ 50Hz, 24.7kHz
5. 640 x 480 @ 60Hz, 31.5kHz	640 x 480 @ 60Hz, 31.5kHz
6. 640 x 480 @ 67Hz, 35.0kHz	640 x 480 @ 67Hz, 35.0kHz
7. 640 x 480 @ 72Hz, 37.9kHz	640 x 480 @ 72Hz, 37.9kHz
8. 640 x 480 @ 75Hz, 37.5kHz	640 x 480 @ 75Hz, 37.5kHz
9. 640 x 480 @ 85Hz, 43.27kHz	640 x 480 @ 85Hz, 43.27kHz
10. 720 x 400 @ 70Hz, 31.5kHz	720 x 400 @ 70Hz, 31.5kHz
11. 800 x 600 @ 56Hz, 35.1kHz	800 x 600 @ 56Hz, 35.1kHz
12. 800 x 600 @ 60Hz, 37.9kHz	800 x 600 @ 60Hz, 37.9kHz
13. 800 x 600 @ 75Hz, 46.9kHz	800 x 600 @ 75Hz, 46.9kHz
14. 800 x 600 @ 72Hz, 48.1kHz	800 x 600 @ 72Hz, 48.1kHz
15. 800 x 600 @ 85Hz, 53.7kHz	800 x 600 @ 85Hz, 53.7kHz

16.	832 x 624 @ 75Hz, 49.7kHz	832 x 624 @ 75Hz, 49.7kHz
17.	1024 x 768 @ 60Hz, 48.4kHz	1024 x 768 @ 60Hz, 48.4kHz
18.	1024 x 768 @ 70Hz, 56.5kHz	1024 x 768 @ 70Hz, 56.5kHz
19.	1024 x 768 @ 72Hz, 58.1kHz	1024 x 768 @ 72Hz, 58.1kHz
20.	1024 x 768 @ 75Hz, 60.0kHz	1024 x 768 @ 75Hz, 60.0kHz
21.	1024 x 768 @ 85Hz, 68.67kHz	1024 x 768 @ 85Hz, 68.67kHz
22.	1152 x 864 @ 75Hz, 67.5kHz	1152 x 864 @ 75Hz, 67.5kHz
23.	1152 x 870 @ 75Hz, 68.7kHz	1152 x 870 @ 75Hz, 68.7kHz
24.	1280 x 1024 @ 60Hz, 63.4kHz	1280 x 1024 @ 60Hz, 63.4kHz
25.	1280 x 1024 @ 75Hz, 79.97kHz	1280 x 1024 @ 75Hz, 79.97kHz
26.	1280x 720 @ 60Hz, 45kHz (HDTV)	1280x 720 @ 60Hz, 45kHz (HDTV)

1.4.2 Function Test Display Pattern

Item	Test Content	Pattern	Specification	Remark
1	Frequency & Tracking	Fine Line Moire	Eliminate visual wavy noise.	Figure 1
2	Contrast/Brightness	16 Gray Scale	16 gray levels should be distinguishable.	Figure 2
3	Boundary	Horizontal & Vertical Thickness	Horizontal and Vertical position of video should be adjustable to be within the screen frame.	Figure 3
4	RGB Color Performance	RGB Color Intensities	Contrast of each R, G, B, color should be normal.	Figure 4, 5, 6
5	Screen Uniformity & Flicker	Full White	Should be compliant with the spec.	Figure 7
6	Dead Pixel/Line	White Screen & Dark Screen	The numbers of dead pixels should be compliant with the spec.	Figure 7, 8
7	White Balance	White & Black Pattern	The screen must have the pure white and black pattern, no other color.	Figure 9

Fine Line Morie Pattern (Figure1)



Gray Scale Pattern (Figure2)

Horizontal & Vertical Thickness Pattern (Figure 3)

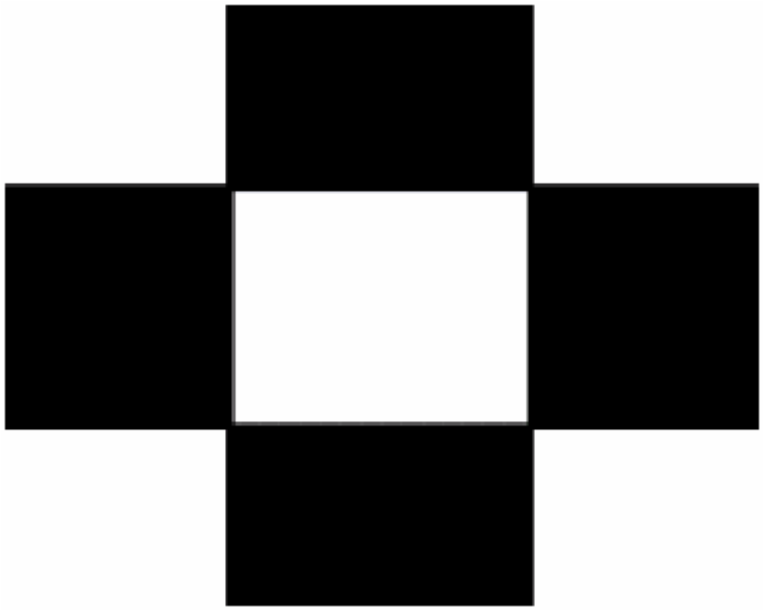
R. Color Pattern (Figure 4)

G. Color Pattern (Figure5)

B. Color Pattern (Figure 6)

Full White Patter (Figure 7)

Dark Screen Pattern (Figure 8)



Black-White Pattern (Figure 9)

1.5 Function Test and Alignment Procedure

1.5.1 All Modes Reset

You should do “All Mode Reset” (Refer to Chapter III-3. Hot Keys for Function Controls) first. This action will allow you to erase all end-user’s settings and restore the factory defaults.

1.5.2 Auto Image Adjust

Please select and enter ***“Auto Image Adjust”*** function on Main Menu to see if it is workable.

The "Auto Image Adjust" function is aimed to offer a better screen quality by built-in ASIC.

For optimum screen quality, the user has to adjust each function manually.

1.5.3 Firmware

Test Pattern: Burn In Mode (Refer to Chapter III-3. Hot Keys for Function Controls)

- Make sure the F/W is the latest version.

1.5.4 DDC

Test Pattern: EDID program

- Make sure it can pass test program.

1.5.5 Fine Tune and Sharpness

Test Signal: 1280*1024@60Hz

Test Pattern: Line Moire Pattern

- Check and see if the image has noise and focus performs well. Eliminate visual line bar.
- If not, readjust by the following steps:

  (a) Select and enter “**Fine Tune**” function on “**Manual Image Adjust**” to adjust the image to eliminate visual wavy noise.

  (b) Then, select and enter “**Sharpness**” function to adjust the clarity and focus of the screen image.

1.5.6 Boundary

Test Signal: 1280*1024@60Hz

Test Pattern: Horizontal & Vertical Line Thickness Pattern

- Check and see if the image boundary is within the screen frame.
- If not, readjust by the following steps:

(a) Select and enter "**Manual Image Adjust**" function on OSD Main Menu.

(b) Then, select and enter "**Horizontal Size**" or "**Horizontal/Vertical Position**" function to adjust the video boundary to be full scanned and within screen frame.

1.5.7 White Balance (Auto Gain) (Refer to Chapter III-3. Hot Keys for Function Controls)

Test Signal: 1280*1024@60Hz

Test Pattern: White and Black Pattern

1.5.8 R, G, B, Colors Contrast

Test Signal: 1280*1024@60Hz

Test Pattern: R, G, B, Color Intensities Pattern and 16 Gray Scale Pattern

- Check and see if each color is normal and distinguishable.
- If not, please return the unit to repair area.

1.5.9 Screen Uniformity and Flicker

Test Signal: 1280*1024@60Hz

Test Pattern: Full White Pattern

- Check and see if it is in normal condition.

1.5.10 Dead Pixel and Line

Test Signal: 1280*1024@60Hz

Test Pattern: Dark and White Screen Pattern

- Check and see if there are dead pixels on LCD panel with shadow gauge and filter film.
- The total numbers and distance of dead pixels should be compliant with the spec.

1.5.11 Mura

Test Pattern: White, RGB, Black, & Grey

Test Tool: 8% ND Filter

- Use 8% ND Filter to check if any Mura on the screen.

1.5.12 Check for Secondary Display Modes

Test Signal:

Analog: 640 x 350 @ 70Hz, 31.5kHz ; 640 x 400 @ 60Hz, 31.5kHz ; 640 x 400 @ 70Hz, 31.5kHz
640 x 480 @ 50Hz, 24.7kHz ; 640 x 480 @ 60Hz, 31.5kHz ; 640 x 480 @ 67Hz, 35.0kHz
640 x 480 @ 72Hz, 37.9kHz ; 640 x 480 @ 75Hz, 37.5kHz ; 640 x 480 @ 85Hz, 43.27kHz
720 x 400 @ 70Hz, 31.5kHz ; 800 x 600 @ 56Hz, 35.1kHz ; 800 x 600 @ 60Hz, 37.9kHz
800 x 600 @ 75Hz, 46.9kHz ; 800 x 600 @ 72Hz, 48.1kHz ; 800 x 600 @ 85Hz, 53.7kHz
832 x 624 @ 75Hz, 49.7kHz ; 1024 x 768 @ 60Hz, 48.4kHz ; 1024 x 768 @ 70Hz, 56.5kHz
1024 x 768 @ 72Hz, 58.1kHz ; 1024 x 768 @ 75Hz, 60.0kHz ; 1024 x 768 @ 85Hz, 68.67kHz
1152 x 864 @ 75Hz, 67.5kHz ; 1152 x 870 @ 75Hz, 68.7kHz ; 1280 x 1024 @ 75Hz, 79.97kHz ;
1280x 720 @ 60Hz, 45kHz (HDTV)

Digital: 640 x 350 @ 70Hz, 31.5kHz ; 640 x 400 @ 60Hz, 31.5kHz ; 640 x 400 @ 70Hz, 31.5kHz
640 x 480 @ 50Hz, 24.7kHz ; 640 x 480 @ 60Hz, 31.5kHz ; 640 x 480 @ 67Hz, 35.0kHz
640 x 480 @ 72Hz, 37.9kHz ; 640 x 480 @ 75Hz, 37.5kHz ; 640 x 480 @ 85Hz, 43.27kHz
720 x 400 @ 70Hz, 31.5kHz ; 800 x 600 @ 56Hz, 35.1kHz ; 800 x 600 @ 60Hz, 37.9kHz
800 x 600 @ 75Hz, 46.9kHz ; 800 x 600 @ 72Hz, 48.1kHz ; 800 x 600 @ 85Hz, 53.7kHz
832 x 624 @ 75Hz, 49.7kHz ; 1024 x 768 @ 60Hz, 48.4kHz ; 1024 x 768 @ 70Hz, 56.5kHz
1024 x 768 @ 72Hz, 58.1kHz ; 1024 x 768 @ 75Hz, 60.0kHz ; 1024 x 768 @ 85Hz, 68.67kHz
1152 x 864 @ 75Hz, 67.5kHz ;1152 x 870 @ 75Hz, 68.7kHz ; 1280 x 1024 @ 75Hz, 79.97kHz ;
1280x 720 @ 60Hz, 45kHz (HDTV)

- Normally when the primary mode 1280*1024@60Hz is well adjusted and compliant with the specification, the secondary display modes will be great possible to be compliant with the spec. But we still have to check with the general test pattern to make sure every secondary is compliant with the specification.

1.5.13 All Modes Reset

After final QC step, we have to erase all saved changes again and restore the factory defaults. You should do "All Mode Reset" again.

1.5.14 Power Off Monitor

Turn off the monitor by pressing “Power” button, and turn off the power switch on the back of the monitor.

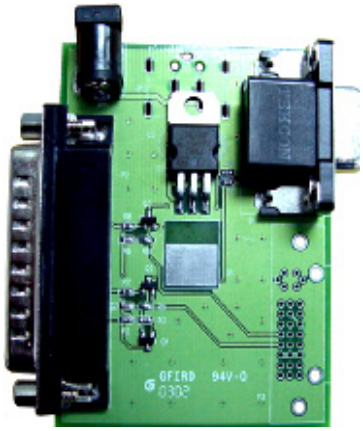
2. Firmware Upgrade Procedure

When you receive the returned monitor, please check whether the firmware version is the latest. If not, please do the following procedures to upgrade it to the latest version.

2.1 Equipment Needed

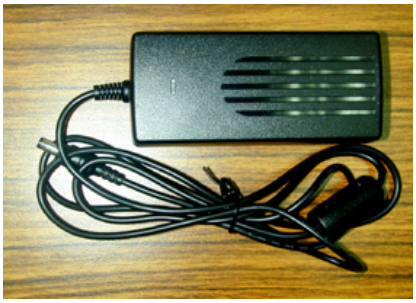
- VP912 Monitor
- Fixture for Firmware Upgrade
- Power Adapter (P/N: 47.58201.001) *1 for Fixture (12 VDC)
- VGA Cable (P/N: 42.59901.003) *1(Pin 4, 11 should be connected to GND)
- PC (Personal Computer) with printer port. (OS: Window 98/ME/2000)
- Printer Cable (P/N: 42.59906.001) *1
- Firmware Upgrade Program
- One additional monitor for checking the program execution

PC

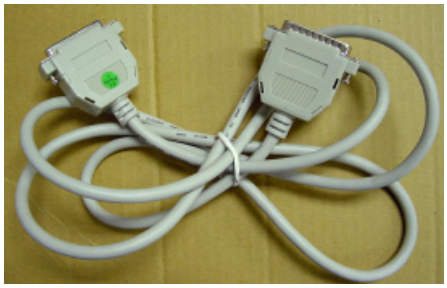


Fixture

VP912



Power Adapter for Fixture
(P/N: 47.58201.001)

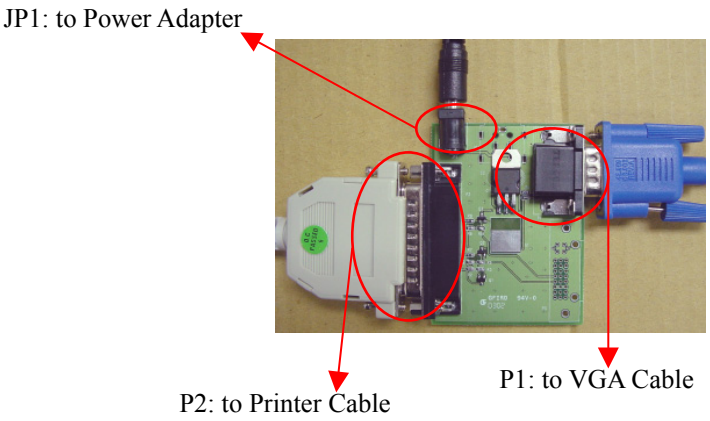


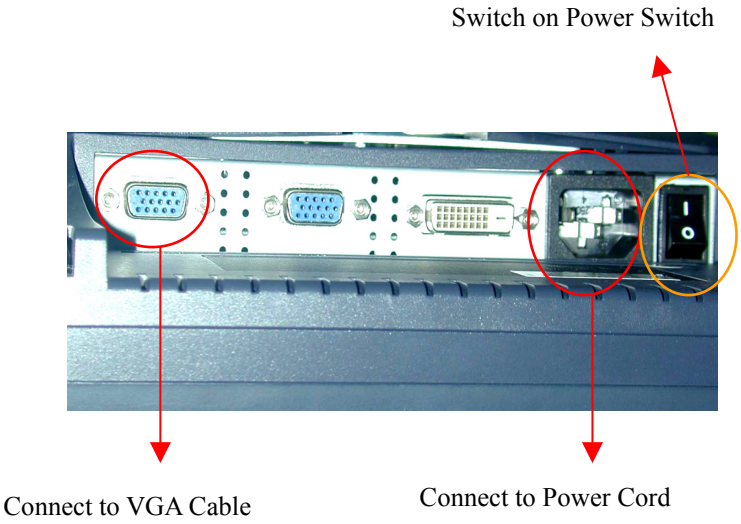
Printer Cable
(P/N: 42.59906.001)

VGA Cable
(P/N: 42.59901.003)

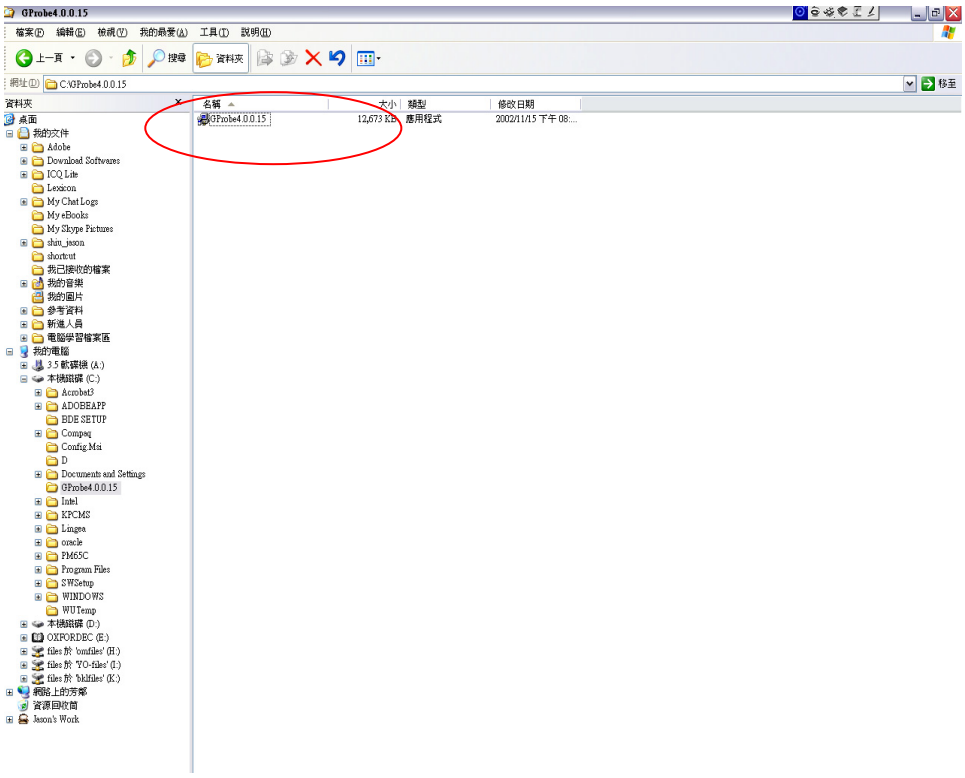
2.2 Setup Procedure

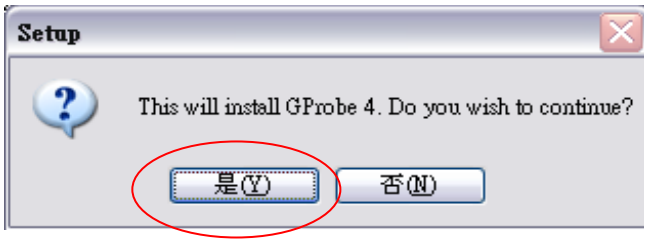
1. Connect P2 of Fixture with printer port of PC by Printer Cable.
2. Connect P1 of Fixture with VP912 Monitor by VGA Cable.
3. Plug Power Adapter to Fixture.
4. Connect Power Cord to VP912 Monitor, and turn on the Power Switch.
5. Connect PC to the additional monitor.

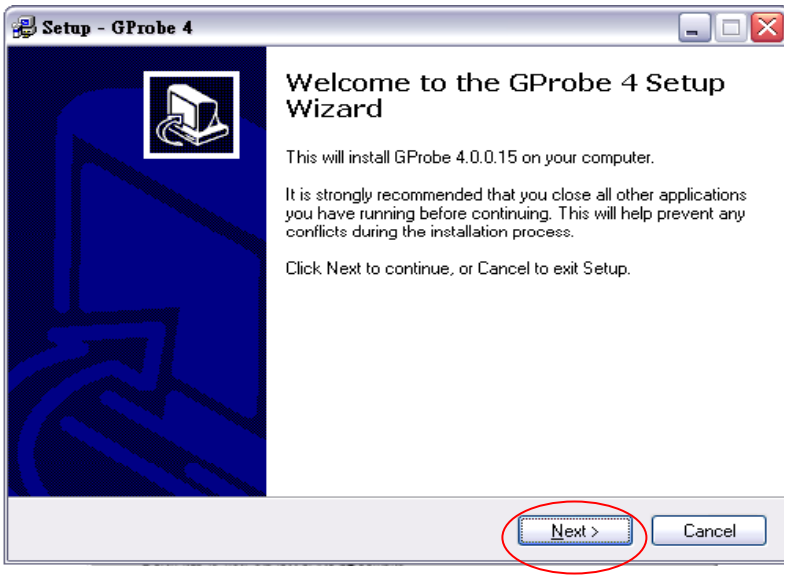


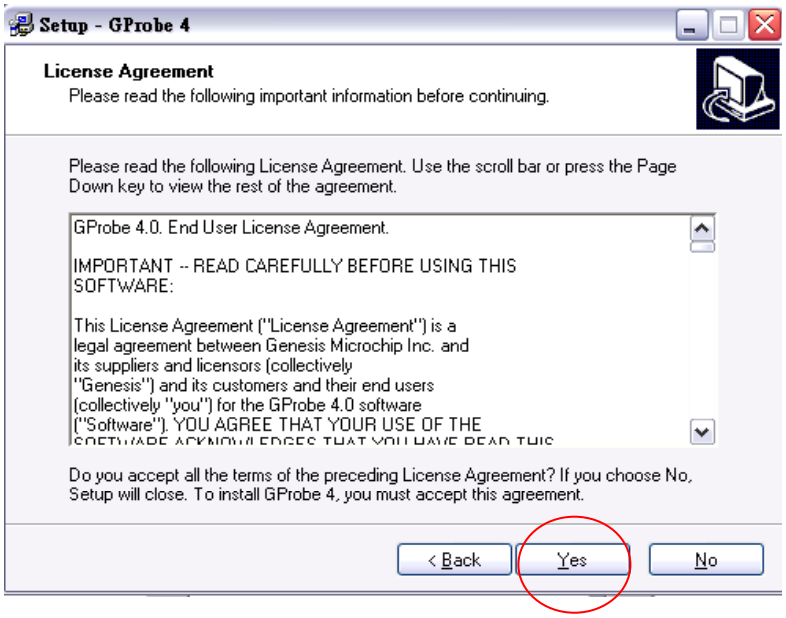


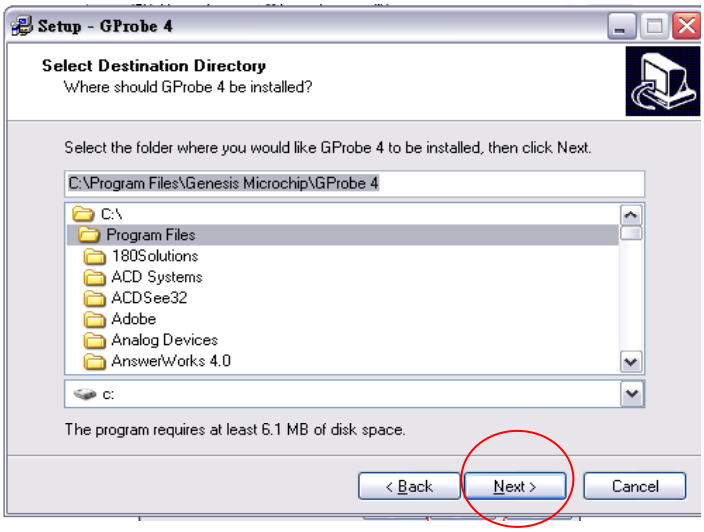
6. Install GProbe Program by selecting and clicking Gprobe icon. Press “Yes” or “Next” buttons until the installation is complete.

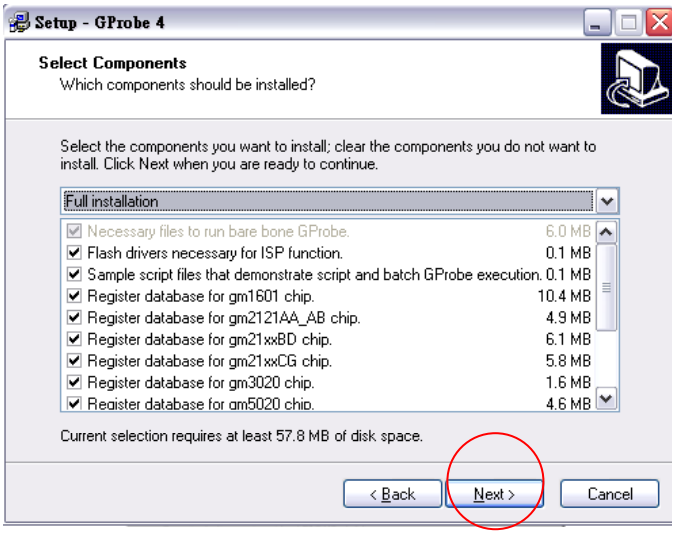


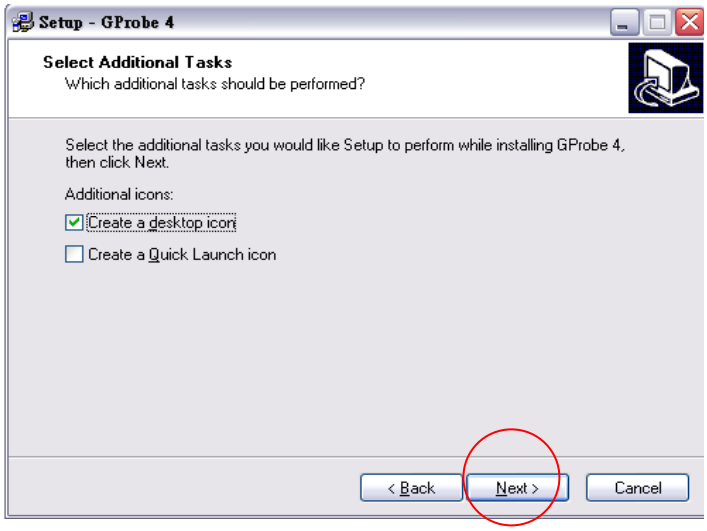


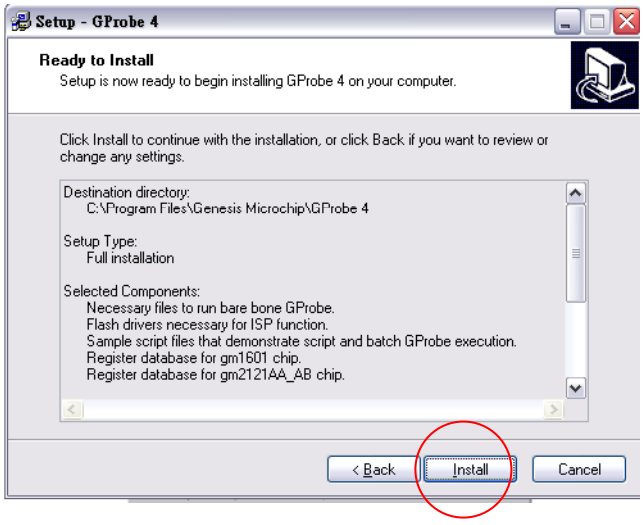

Setup - GProbe 4
Welcome to the GProbe 4 Setup Wizard
This will install GProbe 4.0.0.15 on your computer.
It is strongly recommended that you close all other applications you have running before continuing. This will help prevent any conflicts during the installation process.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

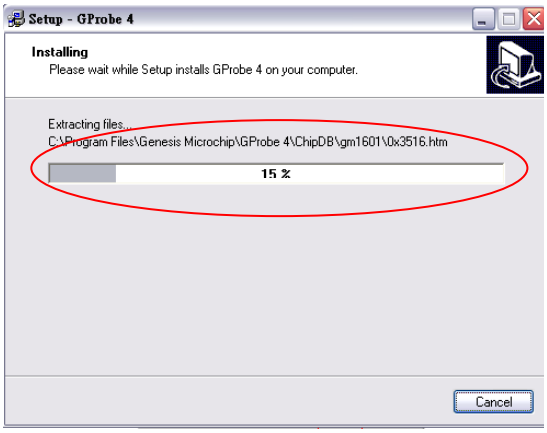

Setup - GProbe 4
License Agreement
Please read the following important information before continuing.
Please read the following License Agreement. Use the scroll bar or press the Page Down key to view the rest of the agreement.
GProbe 4.0. End User License Agreement.
IMPORTANT -- READ CAREFULLY BEFORE USING THIS SOFTWARE:
This License Agreement ("License Agreement") is a legal agreement between Genesis Microchip Inc. and its suppliers and licensors (collectively "Genesis") and its customers and their end users (collectively "you") for the GProbe 4.0 software ("Software"). YOU AGREE THAT YOUR USE OF THE
Do you accept all the terms of the preceding License Agreement? If you choose No, Setup will close. To install GProbe 4, you must accept this agreement.
< Back
Yes
No

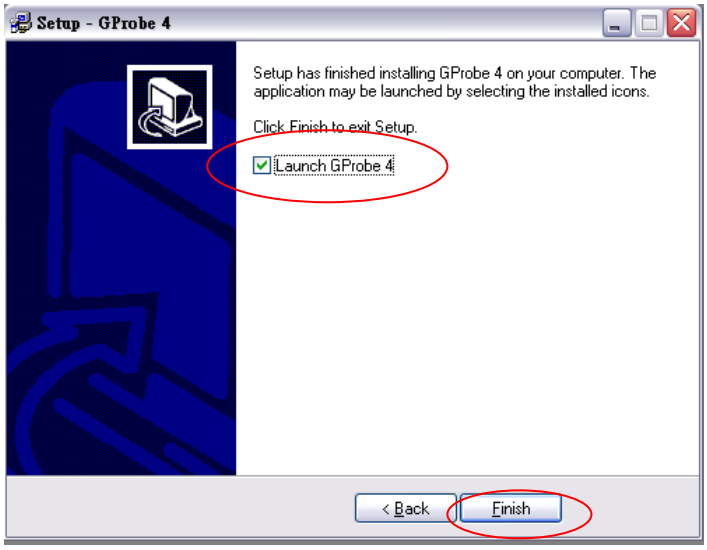

Setup - GProbe 4
Select Destination Directory
Where should GProbe 4 be installed?
Select the folder where you would like GProbe 4 to be installed, then click Next.
C:\Program Files\Genesis Microchip\GProbe 4
C:\
Program Files
180Solutions
ACD Systems
ACDSee32
Adobe
Analog Devices
AnswerWorks 4.0
c:
The program requires at least 6.1 MB of disk space.
< Back
Next >
Cancel


Setup - GProbe 4
Select Components
Which components should be installed?
Select the components you want to install; clear the components you do not want to install. Click Next when you are ready to continue.
Full installation
Necessary files to run bare bone GProbe. 6.0 MB
Flash drivers necessary for ISP function. 0.1 MB
Sample script files that demonstrate script and batch GProbe execution. 0.1 MB
Register database for gm1601 chip. 10.4 MB
Register database for gm2121AA_AB chip. 4.9 MB
Register database for gm21xxBD chip. 6.1 MB
Register database for gm21xxCG chip. 5.8 MB
Register database for gm3020 chip. 1.6 MB
Register database for gm5020 chip. 4.6 MB
Current selection requires at least 57.8 MB of disk space.
< Back
Next >
Cancel


Setup - GProbe 4
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing GProbe 4, then click Next.
Additional icons:
Create a desktop icon
Create a Quick Launch icon
< Back
Next >
Cancel

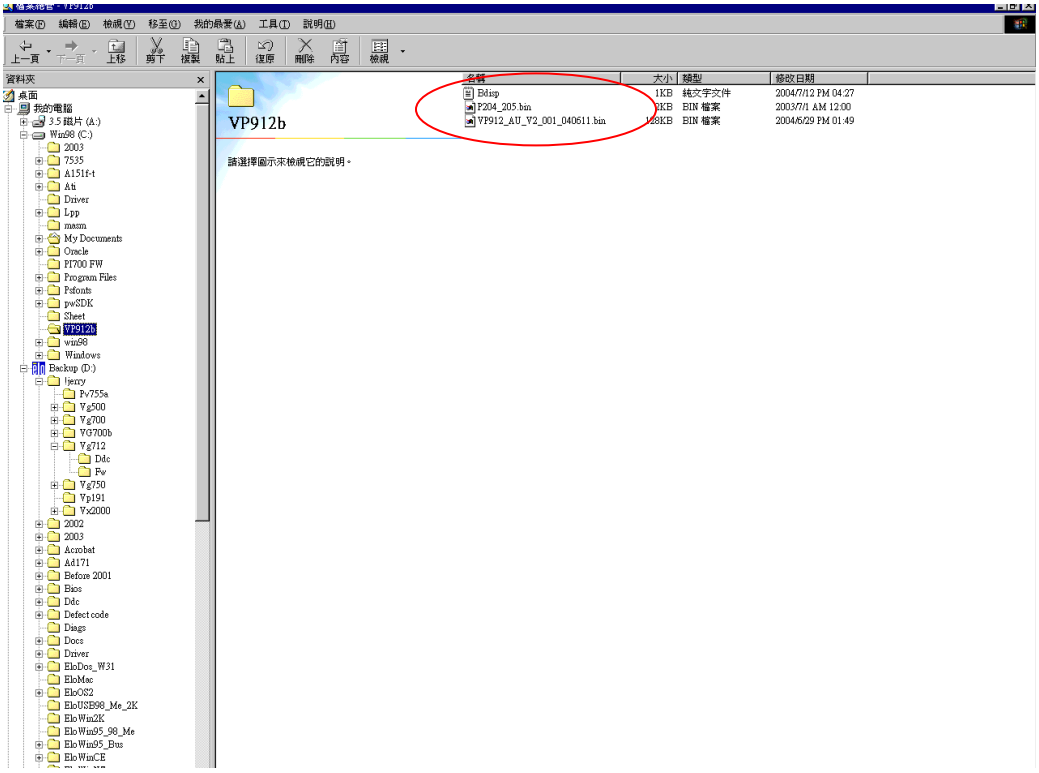

Setup - GProbe 4
Ready to Install
Setup is now ready to begin installing GProbe 4 on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination directory:
C:\Program Files\Genesis Microchip\GProbe 4
Setup Type:
Full installation
Selected Components:
Necessary files to run bare bone GProbe.
Flash drivers necessary for ISP function.
Sample script files that demonstrate script and batch GProbe execution.
Register database for gm1601 chip.
Register database for gm2121AA_AB chip.
< Back
Install
Cancel


Setup - GProbe 4
Installing
Please wait while Setup installs GProbe 4 on your computer.
Extracting files...
C:\Program Files\Genesis Microchip\GProbe 4\ChipDB\gm1601\0x3516.htm
15 %
Cancel


Setup - GProbe 4
Setup has finished installing GProbe 4 on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Launch GProbe 4
< Back
Finish

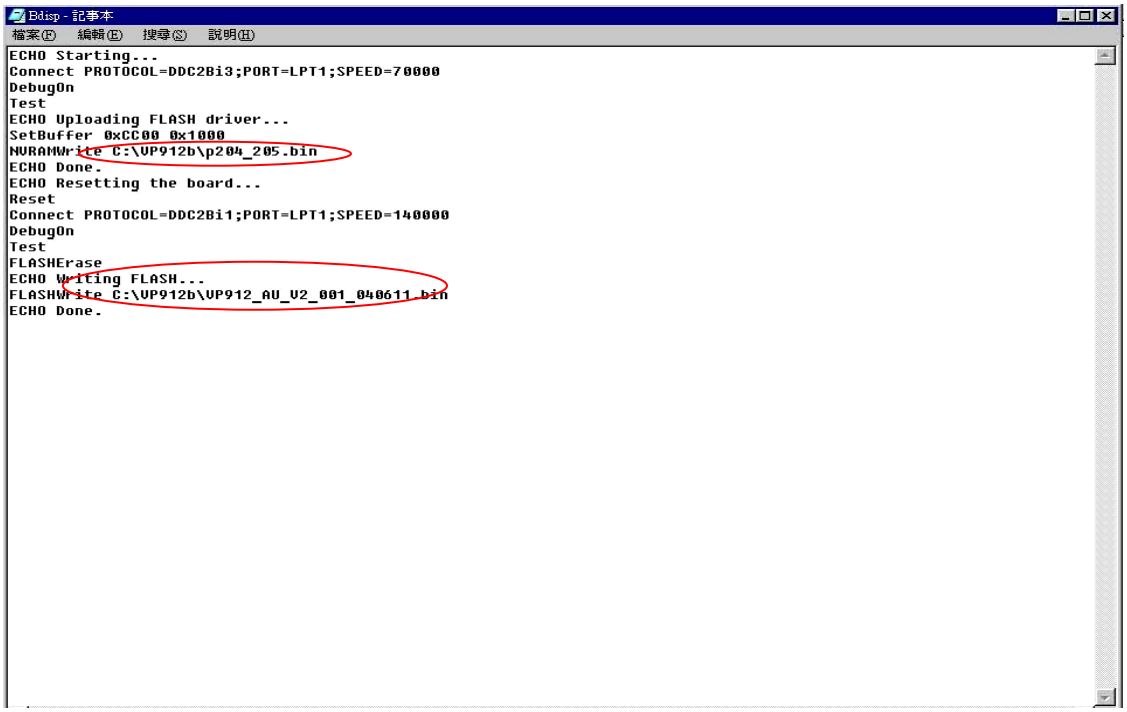
2.3 Firmware Upgrade Procedure

1. Save these three files <bdisp.txt>, <p204_205.bin> and <vp912_AU_V2_001_04611.bin> in the computer.

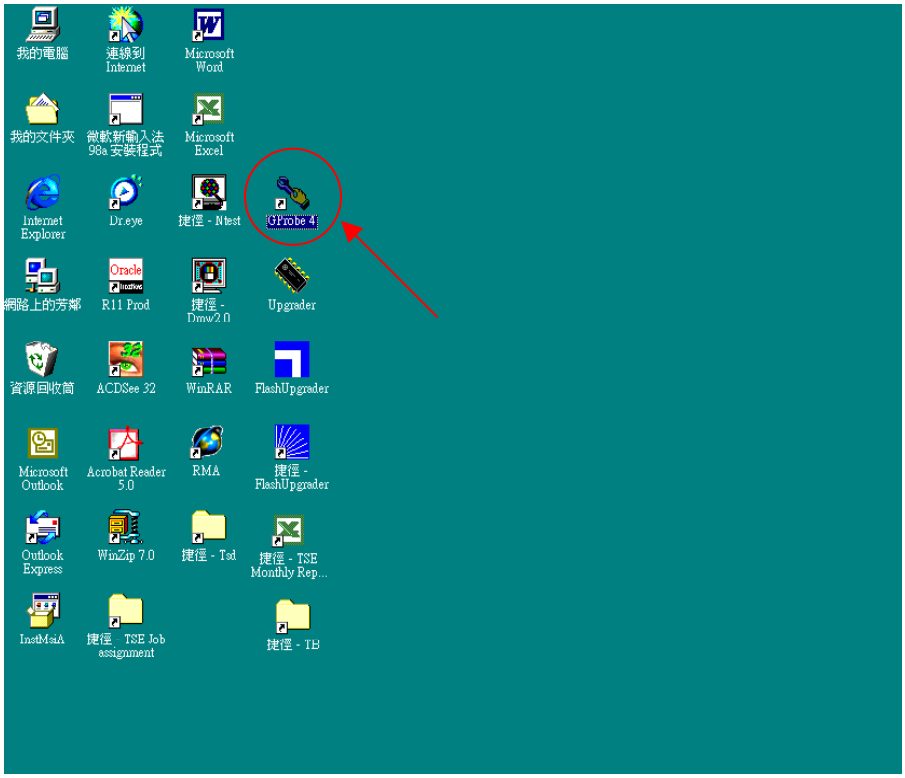


2. Open <bdisp.txt> file.

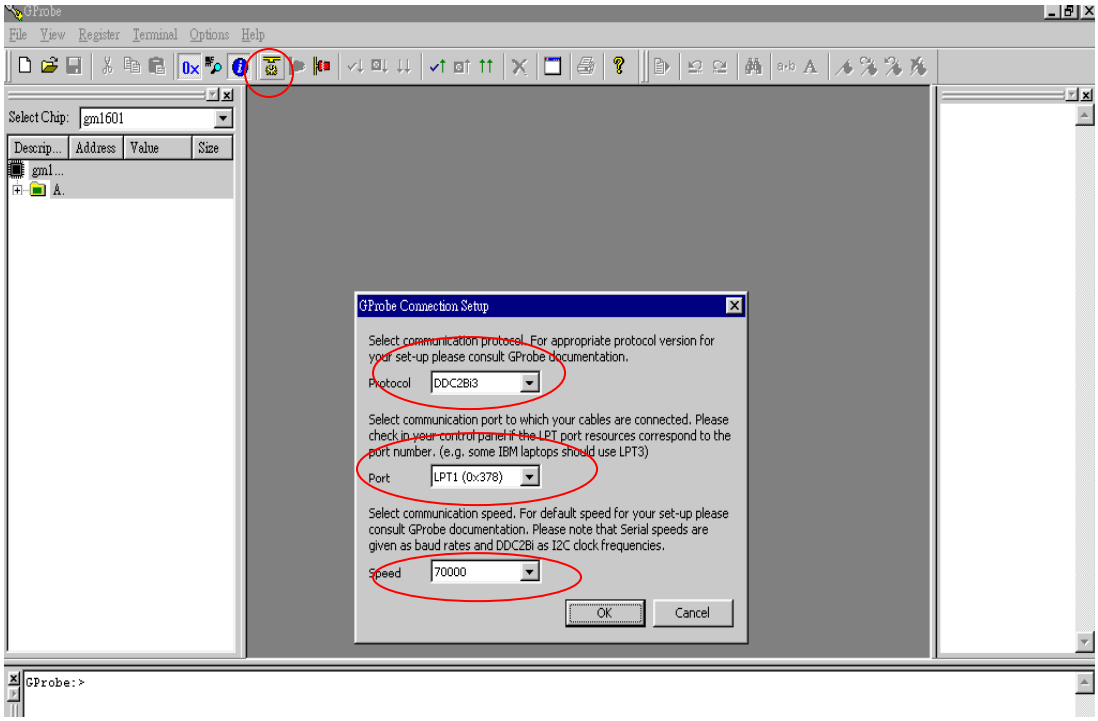
   Key in the path where you save the driver <p204_205.bin> and firmware <vp912_AU_V2_001_040611.bin>.



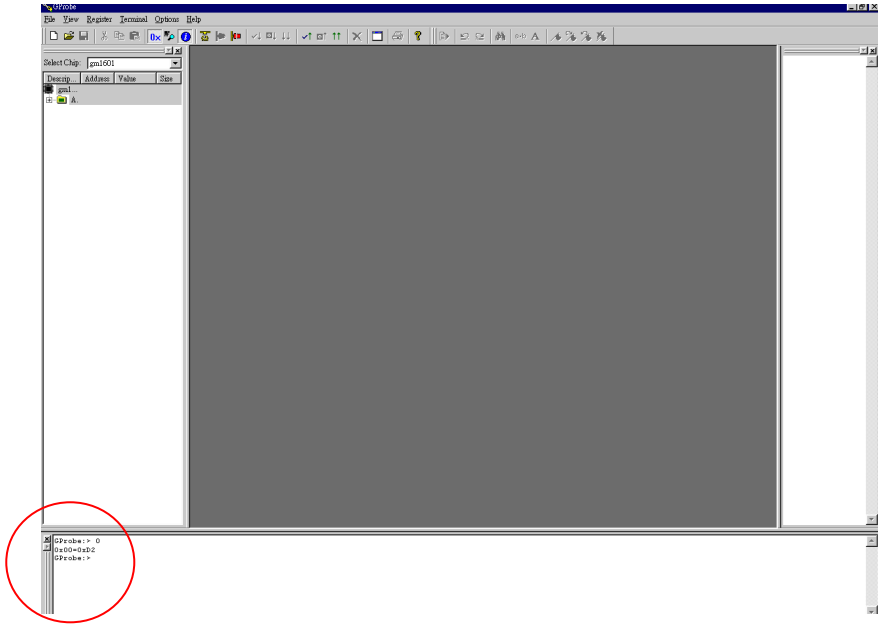
3. Execute Gprobe program.



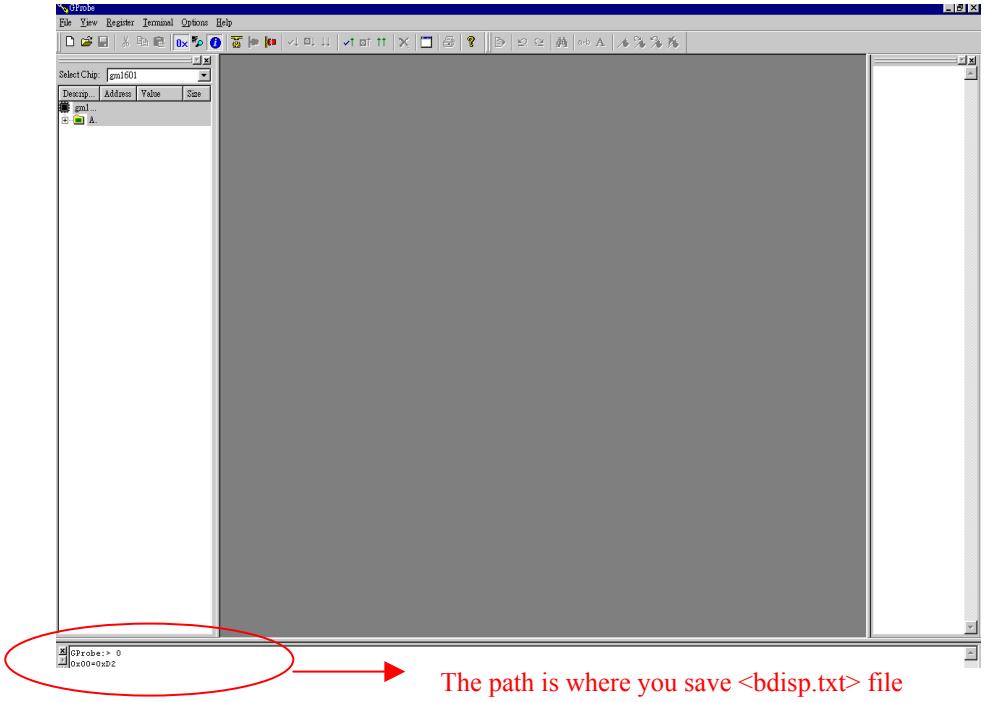
4. Click Connection Setup icon. Select Protocol: DDC 2Bi3, Port: Printer1 (0x378), Speed: 70000.


GProbe
File View Register Terminal Options Help
Select Chip: gm1601
Descrip... Address Value Size
GProbe Connection Setup
Select communication protocol. For appropriate protocol version for your set-up please consult GProbe documentation.
Protocol DDC2Bi3
Select communication port to which your cables are connected. Please check in your control panel if the LPT port resources correspond to the port number. (e.g. some IBM laptops should use LPT3)
Port LPT1 (0x378)
Select communication speed. For default speed for your set-up please consult GProbe documentation. Please note that Serial speeds are given as baud rates and DDC2Bi as I2C clock frequencies.
Speed 70000
OK
Cancel
GProbe:>

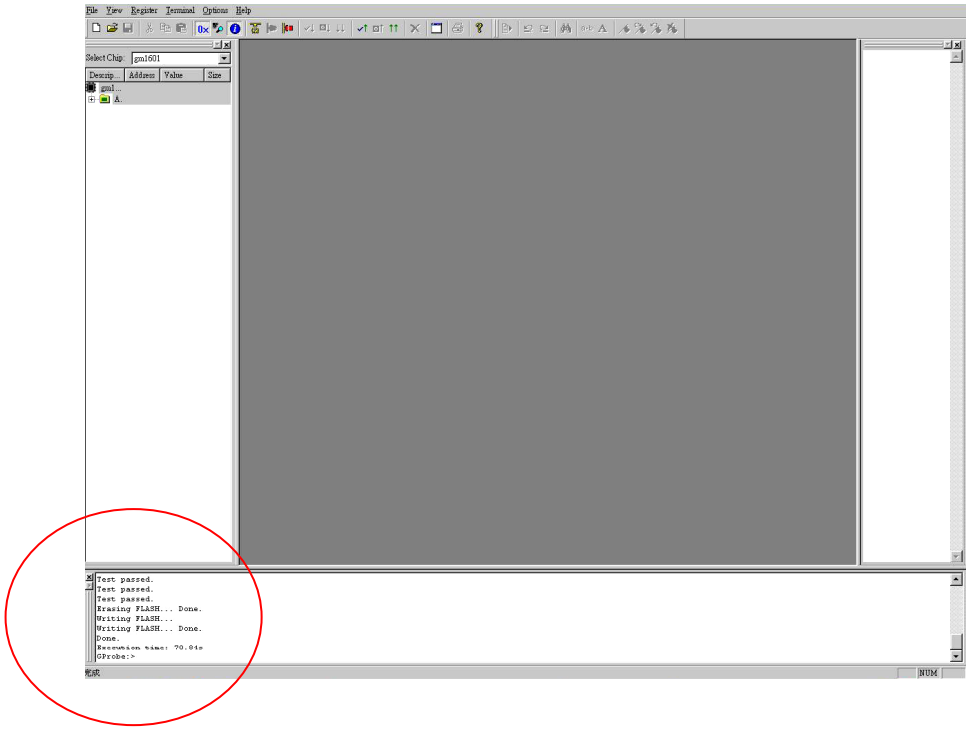
5. Link test: Key in “0” and then press “Enter”. It will show “0x00=0xD2” (If the screen shows “Error Message”, please check your Hardware set up procedure is correct or not.



6. Key in “batch c:\VP912\bdisp.txt” after “Probe :>”, and then press “Enter” key to begin programming automatically.

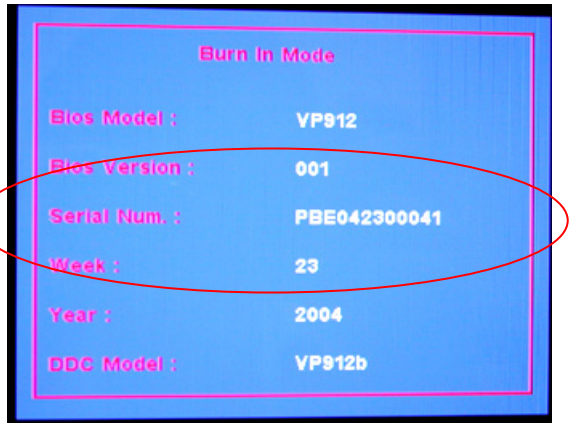


7. The successful picture is as follows:



8. Turn off the power switch of VP912, and turn it on again. Then enter “Burn In Mode”, and Serial Number will appear. Check if the version of BIOS is correct.

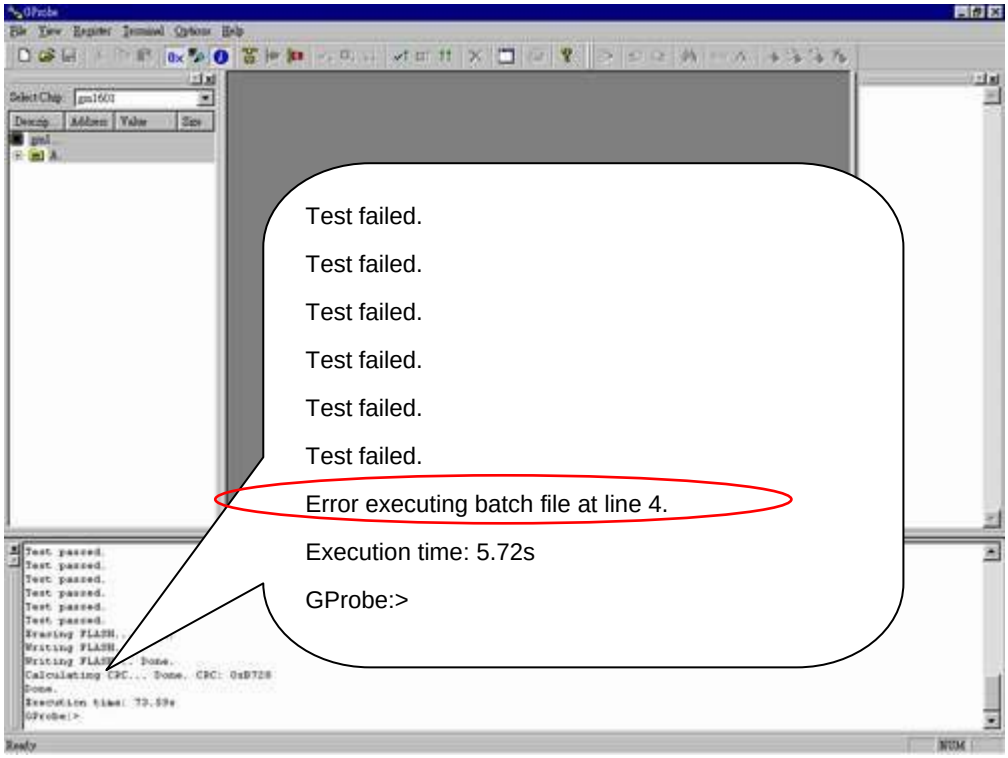
Power Switch



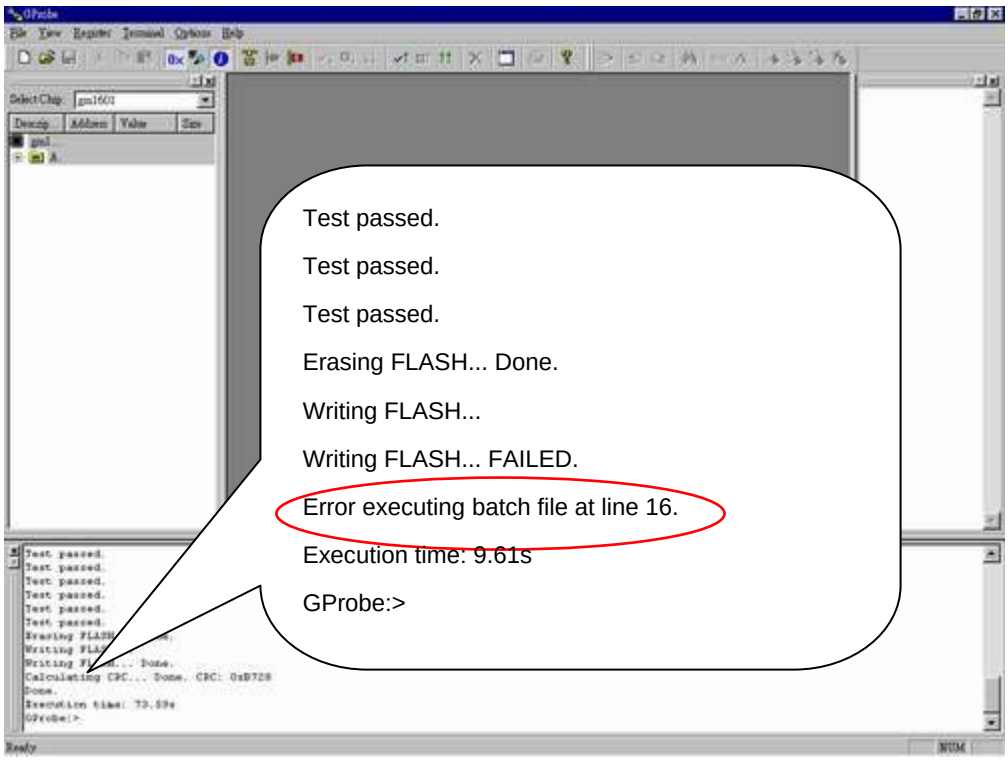
Troubleshooting:

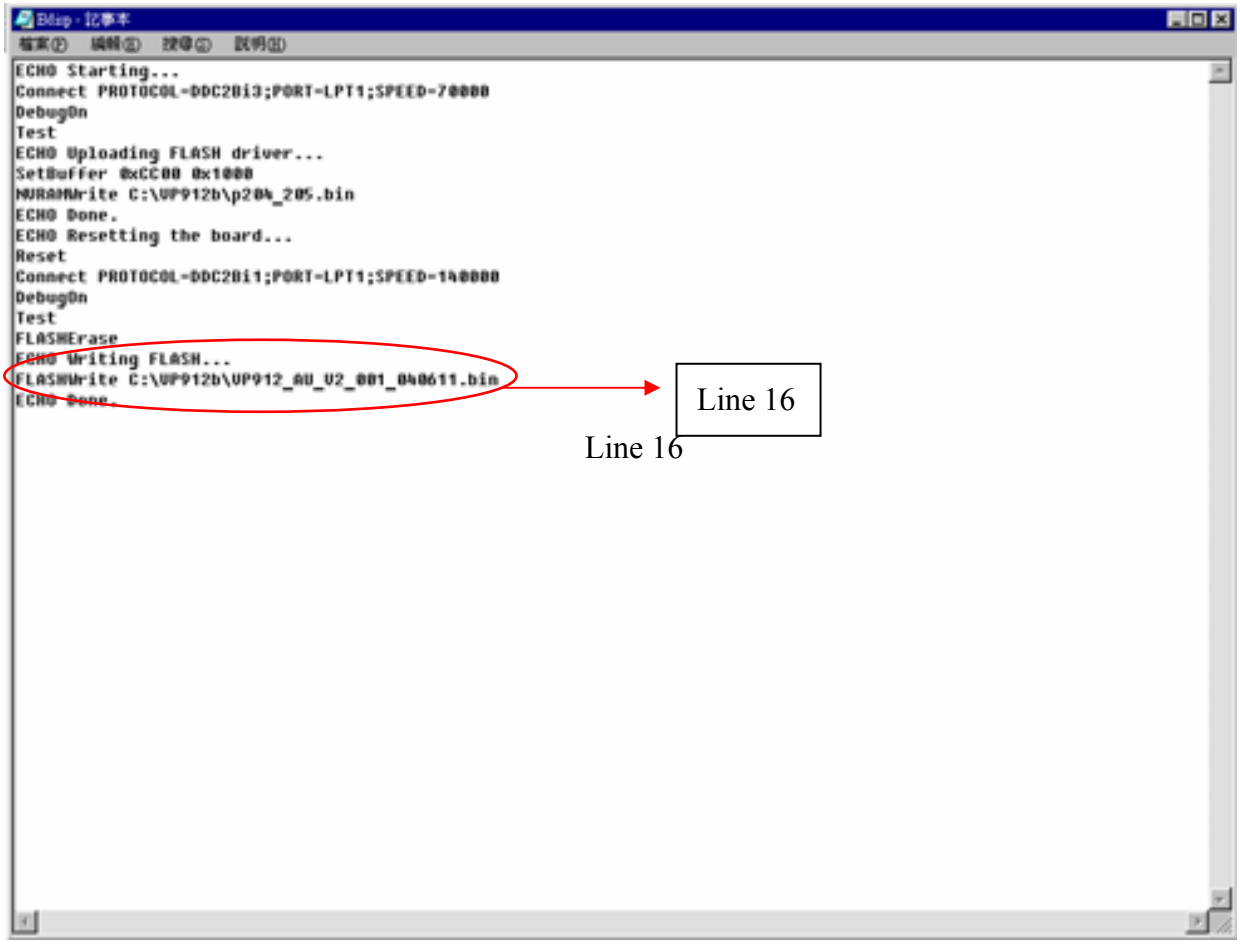
1. If the firmware upgrade fails at the last step, **don't unplug the power cord of the monitor**. Just try the upgrade procedure again.

   (a) If there is error to execute the command at or before line10 in the "bdisp.txt" batch file (for instance, the message "Error executing batch file at line 4" shows up in the Gprobe program (see the following picture)), please try to upgrade the firmware again.

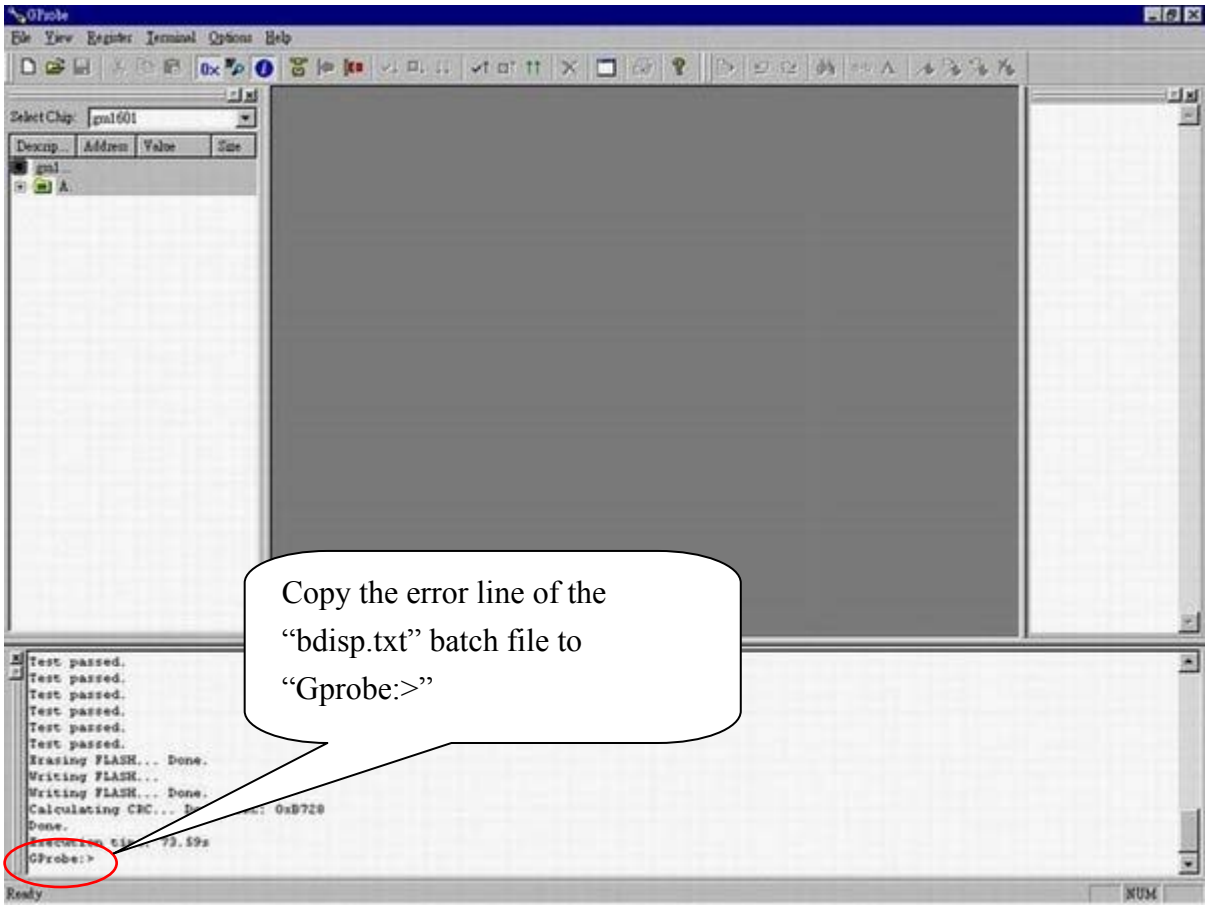


   (b) If there is error to execute the command at or after line11 in the "bdisp.txt" batch file, please copy the error line of the "bdisp.txt" batch file to "Gprobe:>" in the Gprobe program, and then press "Enter." For example, there is "Error executing batch file at line 16" (see the following picture). Then you have to copy line 16 "FLASHWRITE C:\VP912b\VP912_AU_V2_001_040611.bin" in the "bdisp.txt" file to "Gprobe:>" in the Gprobe program, and then press "Enter" (see the picture next page).


Test passed.
Test passed.
Test passed.
Erasing FLASH... Done.
Writing FLASH...
Writing FLASH... FAILED.
Error executing batch file at line 16.
Execution time: 9.61s
GProbe:>


ECHO Starting...
Connect PROTOCOL=DDC2Bi3;PORT=LPT1;SPEED=70000
DebugOn
Test
ECHO Uploading FLASH driver...
SetBuffer 0xCC00 0x1000
MURAMWrite C:\VP912b\p204_205.bin
ECHO Done.
ECHO Resetting the board...
Reset
Connect PROTOCOL=DDC2Bi1;PORT=LPT1;SPEED=140000
DebugOn
Test
FLASHErase
ECHO Writing FLASH...
FLASHWrite C:\VP912b\VP912_AU_V2_001_040611.bin
ECHO Done.
Line 16

Line 16



2. If the firmware upgrade still fails, reboot the PC, or simply use another PC to upgrade.
3. If the above procedures don’t work, unplug and re-plug the power cord of VP912. Then try to upgrade the firmware again if VP912 can be powered on. **If VP912 cannot be turned on, that means the flash memory of the main board is out of work.** You then have to replace the main board.

3. DDC Key In Procedure

Note:

1. Every time after replacing the main board, you have to do the DDC key in.
2. If you find the DDC does not conform to the monitor, you have to do the DDC key in.

3.1 Equipment Needed

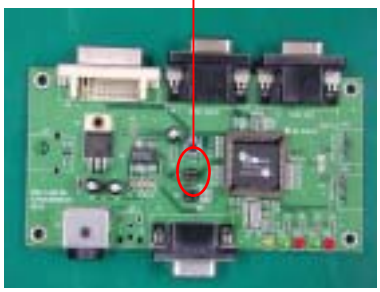
- VP912 Series Monitor
- Fixture (V3) for DDC Key in (JP3 must be closed)
- RS232 Cable (P/N: 42.55907.001) *1
- VGA Cable (P/N: 42.59901.008) *2
- DVI-DVI Cable *1

- PC (Personal Computer)
- Power Adapter (P/N: 47.56001.402) *1 for Fixture (12 VDC)
- DDC Key In Program
- One additional monitor for checking the program execution

COM1: to RS232 Cable

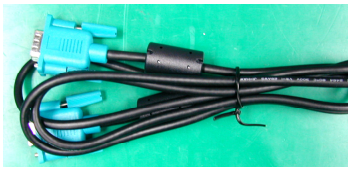
PC

JP3 must be closed



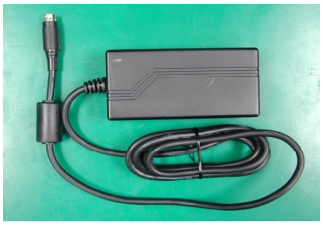
V3 Fixture

VP912



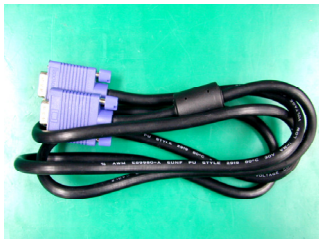
RS-232 Cable
(P/N: 42.55907.001)

DVI-DVI Cable



Power Adapter for Fixture
(P/N: 47.56001.402)

Barcode Reader



VGA Cable (P/N: 42.59901.008)

3.2 Setup Procedure

3.2.1 Connect P2 of Fixture with VGA port of VP912 by VGA Cable.

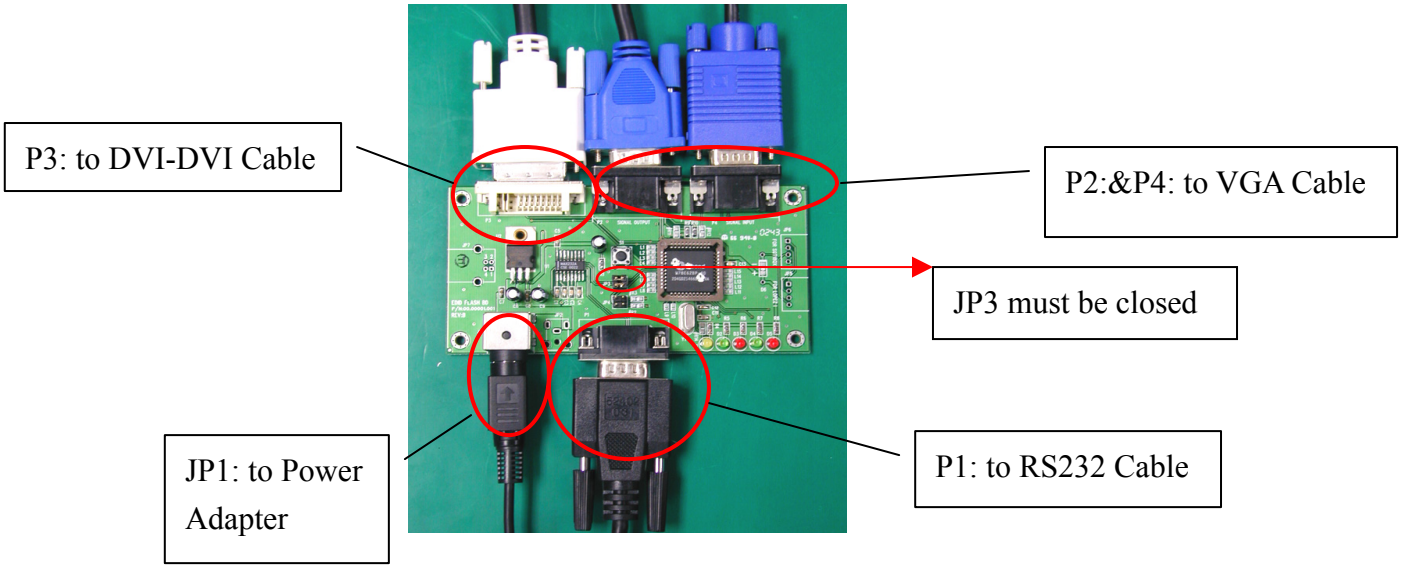
3.2.2 Connect P3 of Fixture with DVI port of VP912 by DVI-DVI Cable.

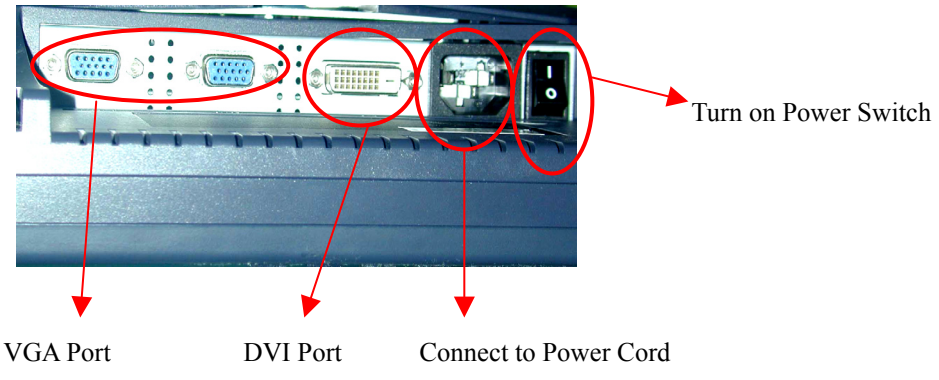
3.2.3 Connect P1 of Fixture with **COM1** of PC by RS-232 Cable.

3.2.4 Plug Power Adapter to Fixture(JP1).

3.2.5 Connect Power Cord to VP912 Monitor.

3.2.6 Connect PC to the additional monitor.

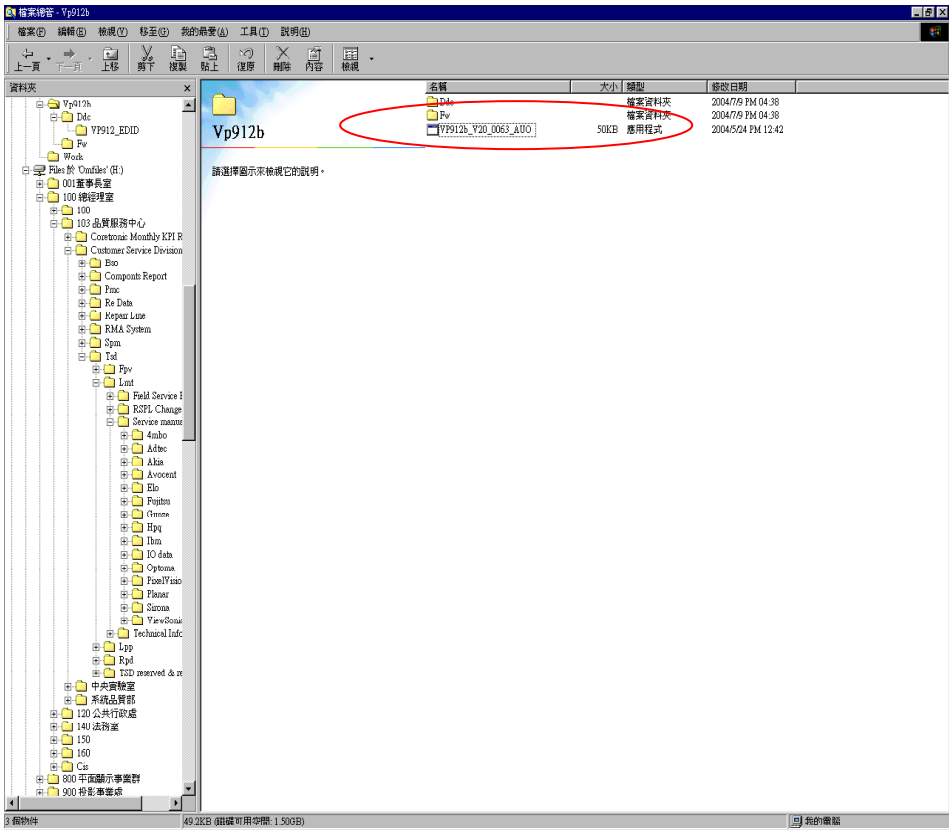




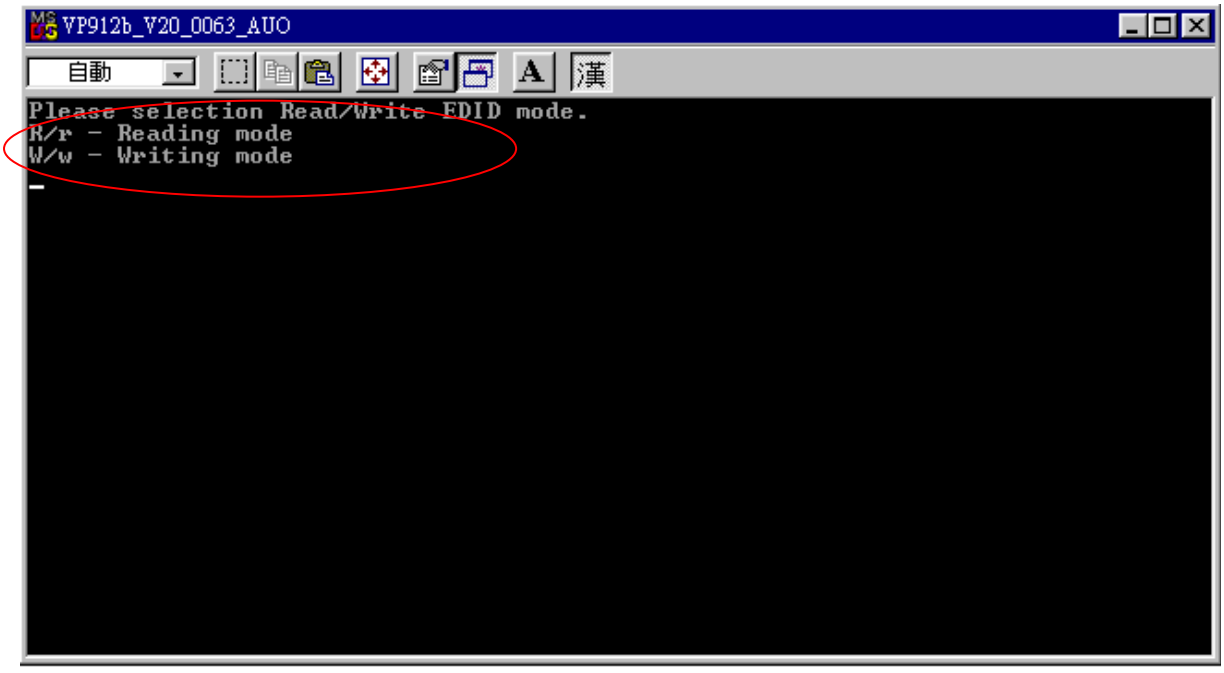
3.3 DDC Key In Procedure

1. Press “1” and “Power” buttons simultaneously to enter Factory Mode.
   Note: The Method to check if Factory Mode is enabled: Press “1” and “Up” buttons simultaneously, if the message of “DMT XXX” appears, that means Factory Mode is enabled.

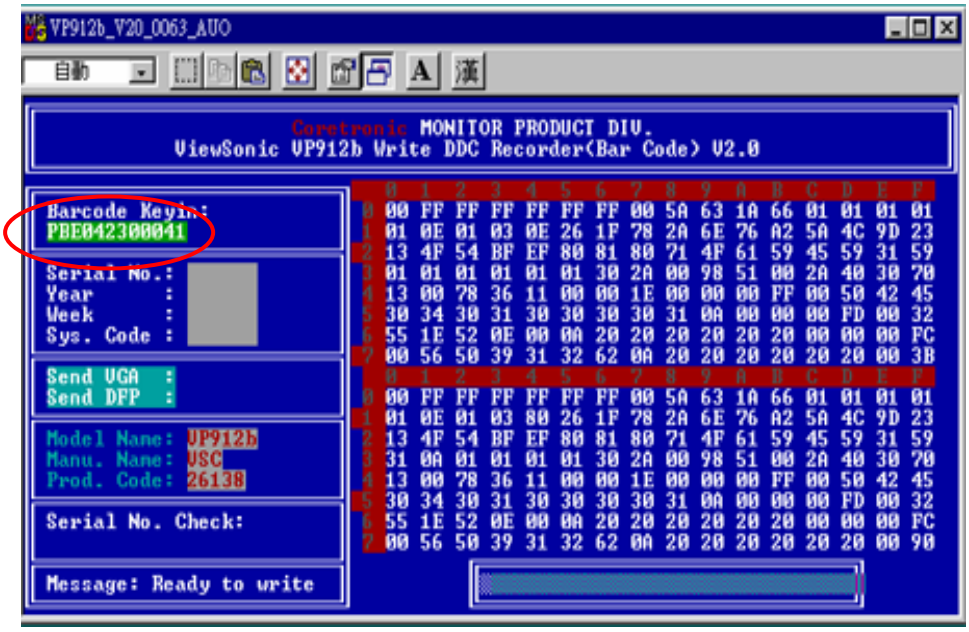
2. Select and execute DDC Key In program.



3. Type “W” to enter the writing mode.

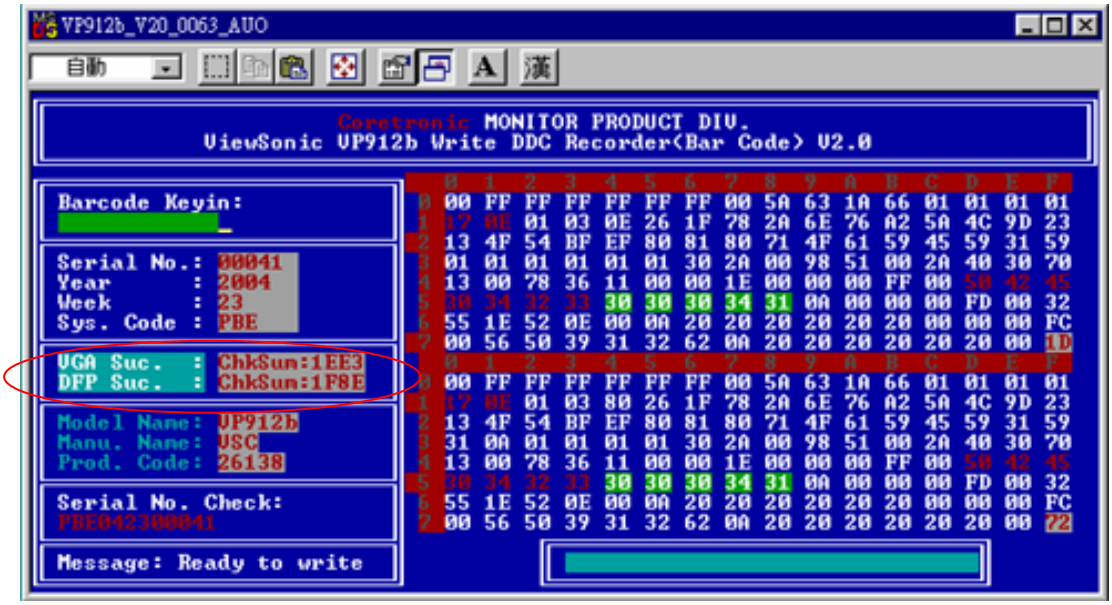


4. Key in the serial number and press “Enter”key.

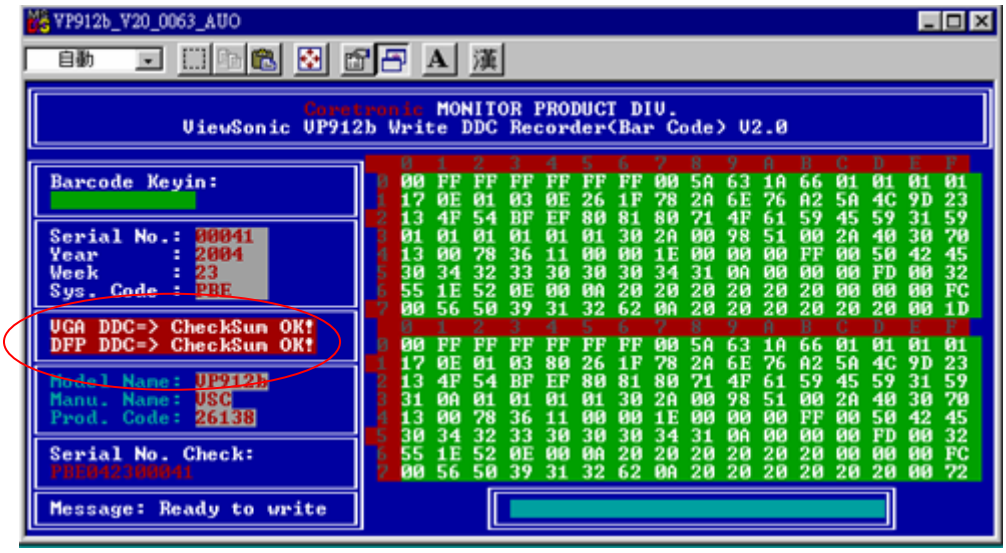


Notice: The English of the serial number should be capital letters.

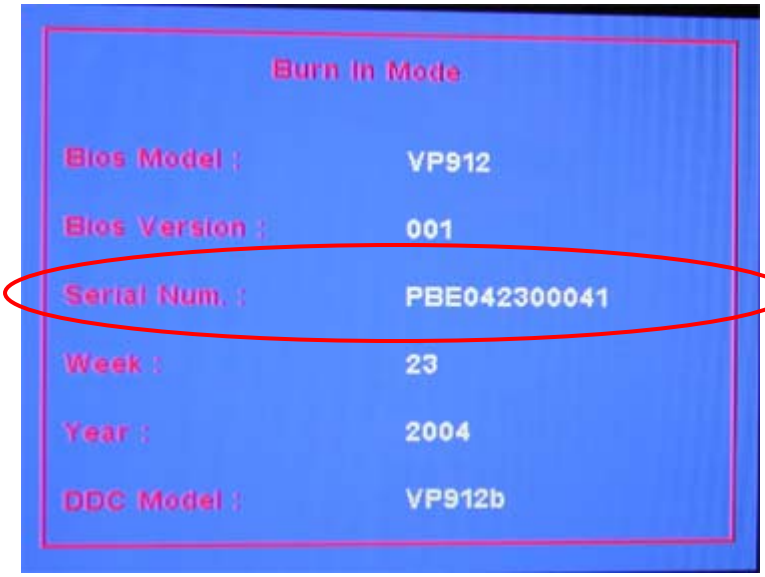
5. The successful picture is as follows. “The checksum values will appear after DDC is upgraded successfully in both VGA and DFP (DVI) modes.”



6. Press “～” button (“Shift”+” 、 ”) to check DDC CheckSum is correct or not.



7. Enter “Burn In Mode.” Turn off the power switch of the rear cover of VP912, and turn it on again. Check if the serial number is correct.



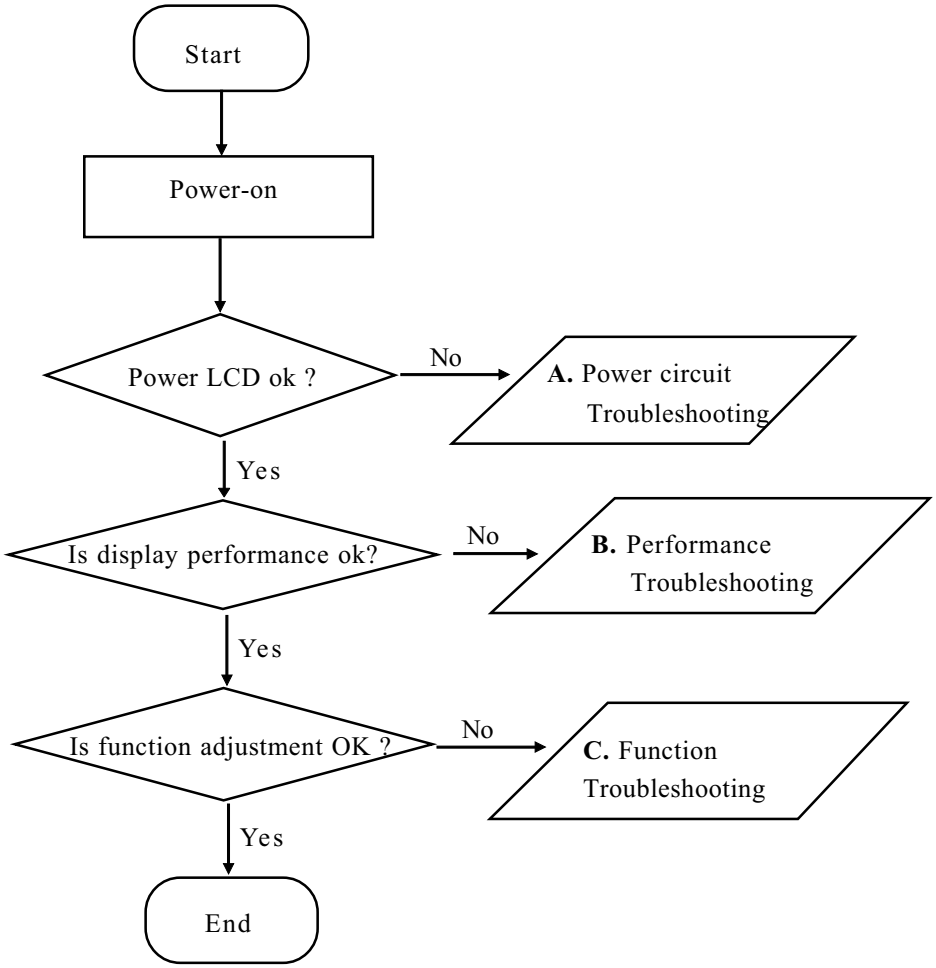
6. Troubleshooting Flow Chart

This chapter describes some primary methods of repairing and maintaining this product, and is intended for technicians and others who have a background in electronics.

1. Equipment Needed

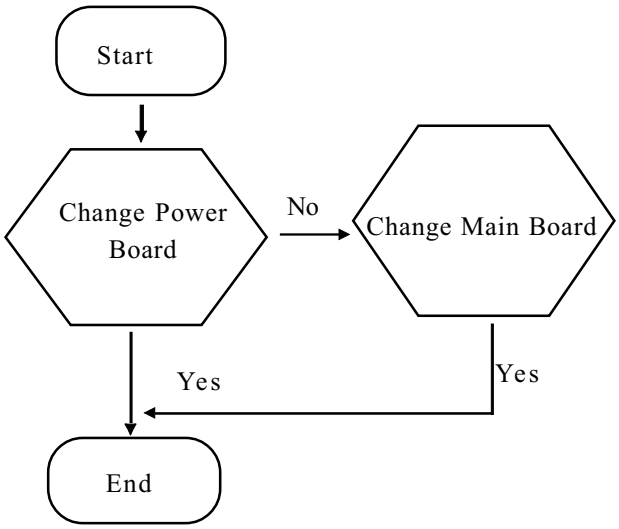
- VP912 Monitor
- Philips Screw Driver #101 and #107
- Electronic Hex Nut M5 mm
- PC (Personal Computer) with SXGA resolution and sound card or a Pattern Generator

2. Main Procedure

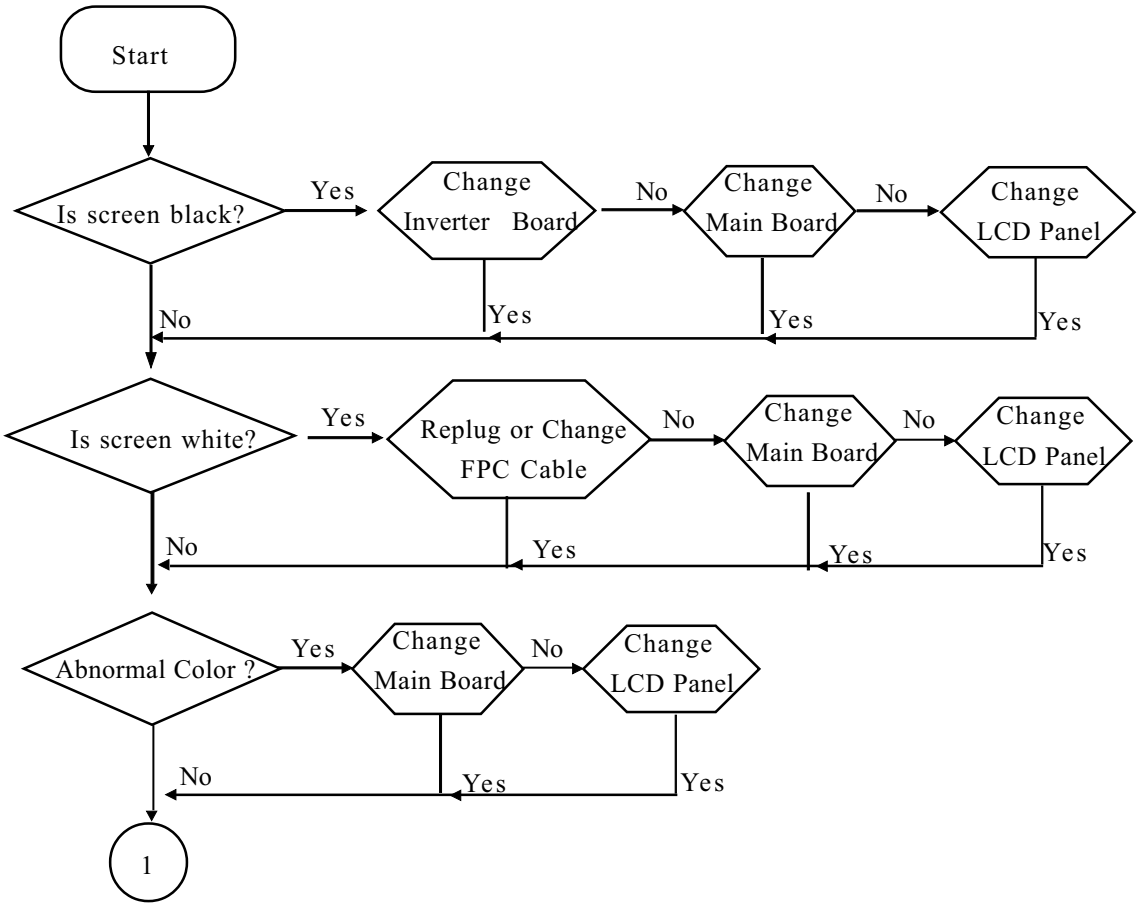


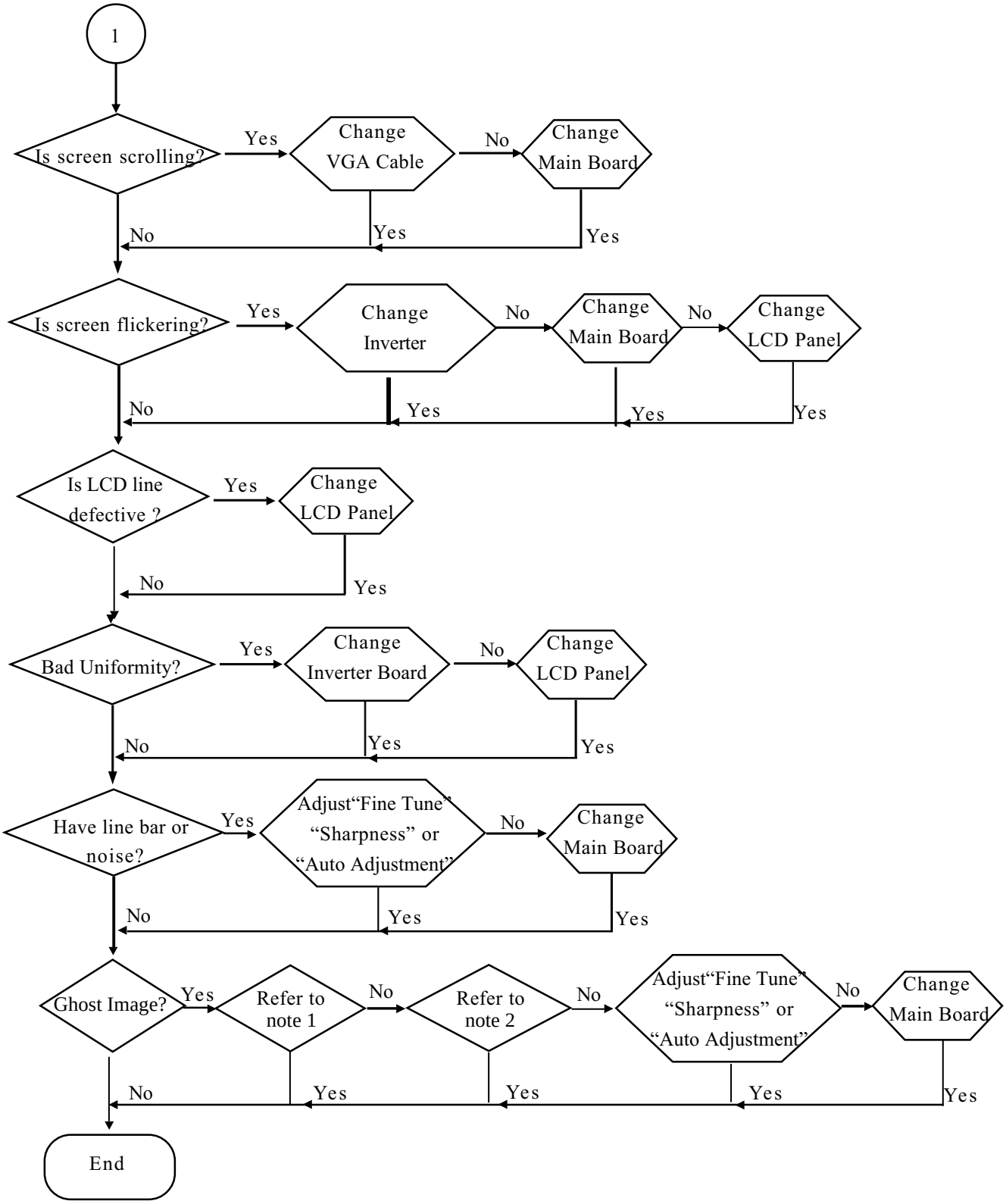
Note: Before troubleshooting, first execute "All Mode Reset" to restore the monitor's settings to the factory defaults.

2.1 A. Power Circuit Troubleshooting



2.2 B. Performance Troubleshooting

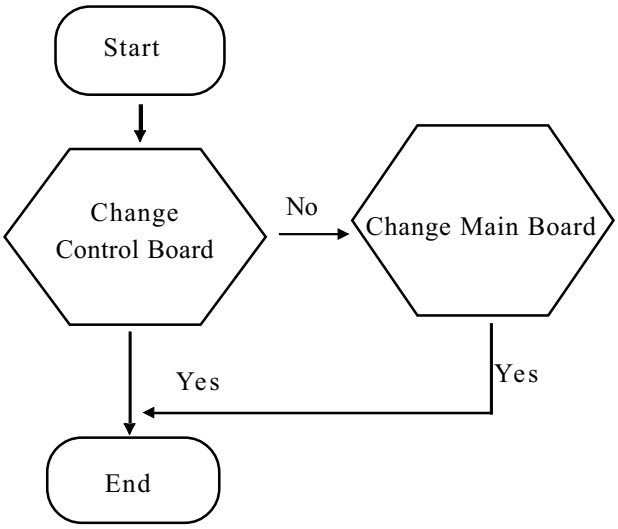




Notes:

1. Make sure the VGA cable is connected to the PC directly, not via any data transfer or distribution devices. After this action if the ghost image disappears, go to "Yes"; otherwise go to "No."
2. Check the compatibility of the computer. If it is a compatibility problem, feedback the information to ViewSonic and go to "Yes"; otherwise go to "No."

2.3 C. Control Function Troubleshooting



7. Recommended Spare Parts List

RECOMMENDED SPARE PARTS LIST (VP912b-1 with "AUO Panel M190EN04 v.4")

ViewSonic Model Number: VLCDS25973
Rev: 1c

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Open Frame IN:100-240V OUT:12V/4.16A "TIGER Power"		A-AD-0114-0242	44.61103.002	Power		1
2		Open Frame IN:100-240V OUT:12V/4.16A"LSE-1"(N		A-AD-0114-0243	44.61103.004	Power		1
3	**PC Board Assembly:**	PCBA Control BD FOR VP171		B-CB-0206-0158	80.61102.001	Control Board		1
4		PCBA Inverter PLCD 0819402A;EMAX-AUEN02		B-SB-0221-0690	44.61801.001	Inverter		1
5		PCBA Main BD VP912 FOR "GM5321+AP1501"		B-00001423	80.61205.003	Main Board		1
6	**Cabinets:**	Assy Base Cover CS-VS08 VP191		C-BS-0303-0377	75.61204.002	Assy Base Cover		1
7		Assy Hinge Cap PC+ABS-VS08 VP191b		M-CV-0830-2432	75.61202.002	Assy Hinge Cover		1
8		Assy Rear Cover-MB GM5321 CS-VS08A VP191b/912b		C-00001526	75.61201.004	Assy Rear Cover		1
9		Assy Stand CS-VS08 VP191b		C-BS-0303-0531	70.61202.002	Assy Stand		1
10		Base Cover PC+ABS-VS08 VP191b		M-CV-0830-2430	51.61209.002	Base Cover		1
11		Front Arm PC+ABS-VS08 VP191b		M-MS-0808-7823	51.61207.002	Front Arm		1
12		Front Cover PC+ABS-VS08A VP912b		C-FP-0301-1078	51.61201.004	Front Cover		1
13		Hinge Cap-1 PC+ABS-VS08 VP191b		M-CV-0830-2427	51.61204.002	Hinge Cap-1		1
14		Hinge Cap-2 PC+ABS-VS08 VP191b		M-CV-0830-2428	51.61205.002	Hinge Cap-2		1
15		Hinge Cap-3 PC+ABS-VS08 VP191b		M-CV-0830-2429	51.61206.002	Hinge Cap-3		1
16		Hinge Cap-4 PC+ABS-VS08 VP191b		M-CV-0830-2431	51.61212.002	Hinge Cap-4		1
17		Oval Cap PC+ABS-VS08A VP191b		M-CV-0830-2426	51.61203.002	Oval Cap		1
18		Rear Arm PC+ABS-VS08 VP191b		M-MS-0808-7824	51.61208.002	Rear Arm		1
19		Rear Cover-MB GM5321 PC+ABS-VS08A VP191b/912b		C-00001351	51.61202.004	Rear Cover		1
20	**Cables:**	W.A. 10/6P UL1007 #24 50mm VP191(INV)		M-WR-0828-0716	42.61202.001	Inverter Wire		1
21		W.A. 30P UL 20276#28 160mm VP912		M-WR-0828-6657	42.61206.A01	Wire		1
22		W.A. 3P UL1007 #18 50mm VP191(Inlet)		M-WR-0828-0719	42.61205.001	Inlet Wire		1
23		W.A. 4P UL1007 #18 VP191(SWT)		M-WR-0828-0718	42.61204.001	Switch Wire		1
24		W.A. 4P UL1007 #24 250mm VP191(Power)		M-WR-0828-0717	42.61203.001	Power Wire		1
25	**Documentation:**	Hi-Pot Test Label F 10mm VP191/191b		M-LB-0830-0726	35.61205.001	HI-Pot		1
26		Label Bar Code 40*14 ViewSonic		M-LB-0813-0736	35.58304.001	Label		1
27		Label Bar Code 50*25mm VP191		M-LB-0813-0781	35.61203.001	Label		1
28		Label Carton 76*76mm		M-LB-0813-0706	35.58203.001	Label		1
29		Label Caution High Voltage 25.4*19mm		M-LB-0813-1016	35.00010.002	Label		1
30		Label Spec 120*50mm VP912b TCO99		M-LB-0813-1064	35.61201.004	Label Spec		1
31	**Electronics:**	TFT LCD 19" 1280*1024 AUO M190EN04 V4		E-00001527	48.61202.002	LCD Panel		1
32	**Hardware:**	Base Plate SPHC 3.0t Zn		M-MS-0808-8772	61.61204.001	Base Plate		1
33		Hinge VP191		M-MS-0808-8755	61.61205.001	Hinge		1
34		LCD BRKT-MB GM5321 SECC 1.0t VP191/912		HW-00001424	61.61201.003	LCD BRKT		1
35		Lock BRKT+CAP SECC 0.8t		M-BK-0805-0023	61.00042.001	Lock BRKT		1
36		Shielding BRKT-MB MST9151B SECC 1.0t VP191		HW-00001425	61.61202.002	Shielding BRKT		1
37		Shielding Plate-INV TinePlate 0.3t VP191		M-MS-0808-9559	61.61203.001	Shielding Plate		1
38	**Miscellaneous:**	Bird Logo AL E015-004 "ViewSonic"		M-MS-0808-7800	35.61202.001	LOGO		1
39		Cosmetic Strip Adhesive 180*10*0.3(t)mm PC-VS08 VP191b		M-00000685	35.61204.002	Cosmetic Strip		1
40		EMI Gasket UGT-7-0.5-8mm		M-MS-0808-9541	41.54002.002	EMI Gasket		2
41		EMI Tape (80560) 25*30mm		M-MS-0808-7799	41.54612.001	EMI Tape		6
42		EMI Tape (80560) 30*50mm		M-MS-0808-7798	41.53615.001	EMI Tape		2
43		Filament Tape 3M NO.8915 25mm*55M		M-MS-0808-8797	51.00014.002	Filament Tape		0.0032
44		Mylar Adhesive 150*45*0.25t VG710		M-00001840	51.62709.002	Mylar		1
45		Mylar Adhesive t=0.3mm VP191		M-MS-0808-7797	51.61216.001	Mylar		1
46		Mylar Protect Film 400*315 0.1t		M-MS-0808-9552	51.61217.001	Protect Film		1
47		PC 20*12*1.0t mm VP191F		P-BX-0601-1082	51.61218.003	PC		2
48		PC 30*12*0.65t mm VP191F		P-BX-0601-1083	51.61218.002	PC		4
49	**Packing Material:**	Carton AB-18 490*265*440 VP912b		P-BX-0601-1065	55.61201.004	Carton		1
50		Cushion L EPS VP191		P-FM-0602-0580	56.61202.001	Left Cushion		1
51		Cushion R EPS VP191		P-FM-0602-0579	56.61201.001	Right Cushion		1
52		PE Bag LDPE 150*65*0.04t mm VP171/191 Series		M-MS-0808-9911	51.61220.001	PE Bag		2
53		PE Bag LDPE 540*750*0.07t W/Hole		M-MS-0808-9551	51.00081.004	PE Bag		1
54	**Plastics:**	Clip Nylon-VS08 VP191b		PL-CL-0710-0033	51.61213.002	Clip		3
55		LED Lens PMMA VP191		M-MS-0808-9539	51.61211.001	LED Lens		1
56		NamePlate Ellipse CS-VS08 ViewSonic		M-MS-0808-8299	51.58711.002	NamePlate		1
57		Rubber 35*10*4mm		M-MS-0808-9912	52.59901.001	Rubber		14
58		Rubber Foot 25*10*1.2t		PL-PD-0714-0064	52.00003.001	Rubber Foot		5
59		Rubber Kit Silicone 20*10*3.5mm		M-MS-0808-9914	52.61202.002	Rubber Kit		2
60		Rubber Kit Silicone 20*10*7.0mm		M-MS-0808-9913	52.61202.003	Rubber Kit		3
61		Rubber Pad 27d*2t VP191		PL-PD-0714-0091	52.61201.001	Rubber Pad		4
62		Select Button PC+ABS-VS08 VP191b		PL-BT-0706-0134	51.61210.002	Select Button		1
63		Wear Plate (Front) VP191		M-MS-0808-7795	51.61214.001	Wear Plate		1
64		Wear Plate (Rear) VP191		M-MS-0808-7796	51.61215.001	Wear Plate		1

M-Model (VP912b-1M)

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord1830mm SP30+IS14		A-PC-0106-0272	42.50115.001	POWER CORD		1

P-Model (VP912b-1P)

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord 1830mm SP30+IS14		A-PC-0106-0272	42.50115.001	POWER CORD		1

G-Model (VP912b-1G)

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord 1.8M+0.1M Color CS-VS08 China		A-PC-0106-0187	42.50126.001	POWER CORD		1
2	**Documentation:**	Warrnaty Card S. Chinese Second Version ViewSonic		M-MS-0808-8773	36.58307.002	WARRANTY		1
3		Warranty Sticker S. Chinese		M-LB-0813-0737	36.58308.001	WARRANTY		1
4		Shipping Warranty Sticker S. Chinese ViewSonic		M-LB-0813-0739	36.58309.001	WARRANTY		1
5	**Packing:**	PE Bag LDPE 820*850*0.05t VP191/191b (For Carton)		M-MS-0808-8794	51.61219.001	PE BAG		1

A-Model (VP912b-1A)

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord 1830mm SP30+IS14		A-PC-0106-0272	42.50115.001	POWER CORD		1

RECOMMENDED SPARE PARTS LIST (VP912s-1 with "AUO Panel M190EN04 v.4")

ViewSonic Model Number: VLCDS25973 **Rev: 1c**

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Open Frame IN:100-240V OUT:12V/4.16A "Tiger Power"		A-AD-0114-0242	44.61103.002	Power		1
2		Open Frame IN:100-240V OUT:12V/4.16A"LSE-1"(N		A-AD-0114-0243	44.61103.004	Power		1
3	**PC Board Assembly:**	PCBA Control BD For VP171		B-CB-0206-0158	80.61102.001	Control Board		1
4		PCBA Inverter PLCD 0819402A;EMAX-AUEN02		B-SB-0221-0690	44.61801.001	Inverter		1
5		PCBA Main BD VP912 For "GM5321+AP1501"		B-00001423	80.61205.003	Main Board		1
6	**Cabinets:**	Assy Base Cover PC+ABS-VS06 VP191s		M-CV-0830-2456	75.61204.003	ASSY Base Cover		1
7		Assy Hinge Cap CS-VS06 VP191s		M-CV-0830-2457	75.61202.003	ASSY Hinge Cap		1
8		Assy Rear Cover-MB GM5321 CS-VS06A VP191s		C-00001529	75.61201.005	ASSY Rear Cover		1
9		Assy Stand VS06 VP191s		C-BS-0303-0532	70.61202.003	ASSY Stand		1
10		Base Cover PC+ABS-VS06 VP191s		M-CV-0830-2454	51.61209.003	Base Cover		1
11		Front Arm PC+ABS-VS06 VP191s		M-MS-0808-8751	51.61207.003	Front ARM		1
12		Front Cover PC+ABS-VS07A VP912s		C-FP-0301-1071	51.61201.005	Front Cover		1
13		Hinge Cap-1 PC+ABS-VS06 VP191s		M-CV-0830-0297	51.61204.003	Hinge Cap-1		1
14		Hinge Cap-2 PC+ABS-VS06 VP191s		M-CV-0830-0298	51.61205.003	Hinge Cap-2		1
15		Hinge Cap-3 PC+ABS-VS06 VP191s		M-CV-0830-2453	51.61206.003	Hinge Cap-3		1
16		Hinge Cap-4 PC+ABS-VS06 VP191s		M-CV-0830-2455	51.61212.003	Hinge Cap-4		1
17		Oval Cap PC+ABS-VS06A VP191s		M-CV-0830-2452	51.61203.003	Oval Cap		1
18		Rear Arm PC+ABS-VS06 VP191s		M-MS-0808-8752	51.61208.003	Rear Am		1
19		Rear Cover-MB GM5321 PC+ABS-VS06A VP191s/		C-00001352	51.61202.005	Rear Cover		1
20	**Cables:**	Cable DVI-D 1.8M 2-Core Molex		A-VC-0101-0262	42.59902.012	DVI-D Cable		1
21		Cable VGA 15P 1800mm 2*75mm 2-Core		CB-00000183	42.59910.A01	VGA Cable		1
22		W.A. 10/6P UL1007 #24 50mm VP191(INV)		M-WR-0828-0716	42.61202.001	Inverter Wire		1
23		W.A. 30P UL 20276#28 160mm VP912		M-WR-0828-6657	42.61206.A01	Wire		1
24		W.A. 3P UL1007 #18 50mm VP191(Inlet)		M-WR-0828-0719	42.61205.001	Inlet Wire		1
25		W.A. 4P UL1007 #18 VP191(SWT)		M-WR-0828-0718	42.61204.001	Switch Wire		1
26		W.A. 4P UL1007 #24 250mm VP191(Power)		M-WR-0828-0717	42.61203.001	Power Wire		1
27	**Documentation:**	Hi-Pot Test Label F 10mm VP191/191b		M-LB-0830-0726	35.61205.001	Hi-Pot		1
28		Label Barcode 40*14 ViewSonic		M-LB-0813-0736	35.58304.001	Label		1
29		Label Barcode 50*25mm VP191		M-LB-0813-0781	35.61203.001	Label		1
30		Label Carton 76*76mm		M-LB-0813-0706	35.58203.001	Label		1
31		Label Caution High Voltage 25.4*19mm		M-LB-0813-1016	35.00010.002	Label		1
32		Label Spec 120*50mm VP912s TCO03		M-LB-0813-1065	35.61201.005	Label Spec		1
33		PE Bag LDPE 150*65*0.04t mm VP171/191 Series		M-MS-0808-9911	51.61220.001	PE Bag		2
34		User Guide +CD VP912s (AU EN04V1)		A-CD-VP912S	36.61201.006	User Guide		1
35	**Electronics:**	TFT LCD 19" 1280*1024 AUO M190EN04 V4		E-00001527	48.61202.002	LCD Panel		1
36	**Hardware:**	Base Plate SPHC 3.0t Zn		M-MS-0808-8772	61.61204.001	Base Plate		1
37		Hinge VP191		M-MS-0808-8755	61.61205.001	Hinge		1
38		LCD BRKT-MB GM5321 SECC 1.0t VP191/912		HW-00001424	61.61201.003	LCD BRKT		1
39		Lock BRKT+Cap SECC 0.8t		M-BK-0805-0023	61.00042.001	Lock BRKT		1
40		Shielding BRKT-MB MST9151B SECC 1.0t VP191		HW-00001425	61.61202.002	Shielding BRKT		1
41		Shielding Plate-INV TinePlate 0.3t VP191		M-MS-0808-9559	61.61203.001	Shielding Plate		1
42	**Miscellaneous:**	Bird Logo AL E015-004 "ViewSonic"		M-MS-0808-7800	35.61202.001	Logo		1
43		EMI Gasket UGT-7-0.5-8mm		M-MS-0808-9541	41.54002.002	EMI Gasket		2
44		EMI Tape (80560) 25*30mm		M-MS-0808-7799	41.54612.001	EMI Tape		6
45		EMI Tape (80560) 30*50mm		M-MS-0808-7798	41.53615.001	EMI Tape		2
46		Filament Tape 3M NO.8915 25mm*55M		M-MS-0808-8797	51.00014.002	Filament Tape		0.0032
47		Mylar Adhesive 150*45*0.25t VG710		M-00001840	51.62709.002	Mylar		1
48		Mylar Adhesive t=0.3mm VP191		M-MS-0808-7797	51.61216.001	Mylar		1
49		Mylar Protect Film 400*315 0.1t		M-MS-0808-9552	51.61217.001	Protect Film		1
50		PC 20*12*1.0t mm VP191F		P-BX-0601-1082	51.61218.003	PC		2
51		PC 30*12*0.65t mm VP191F		P-BX-0601-1083	51.61218.002	PC		4
52		Rear Strip Adhesive 180*10*0.3(t)mm P		M-00000174	35.61204.003	Rear Strip		1
53	**Packing Material:**	Carton AB-18 490*265*440 VP912s		P-BX-0601-1066	55.61201.005	Carton		1
54		Cushion L EPS VP191		P-FM-0602-0580	56.61202.001	Left Cushion		1
55		Cushion R EPS VP191		P-FM-0602-0579	56.61201.001	RIight Cushion		1
56		PE Bag LDPE 540*750*0.07t W/HOLE		M-MS-0808-9551	51.00081.004	PE BAG		1
57	**Plastics:**	CLIP Nylon-VS06 VP191s		M-MS-0808-8753	51.61213.003	CLIP		3
58		LED Lens PMMA VP191		M-MS-0808-9539	51.61211.001	LED Lens		1
59		Name plate Ellipse ViewSonic		M-MS-0808-8116	51.58711.001	Name plate		1
60		Rubber 35*10*4mm		M-MS-0808-9912	52.59901.001	Rubber		14
61		Rubber Foot 25*10*1.2t		PL-PD-0714-0064	52.00003.001	Rubber Foot		5
62		Rubber Kit Silicone 20*10*3.5mm		M-MS-0808-9914	52.61202.002	Rubber Kit		2
63		Rubber Kit Silicone 20*10*7.0mm		M-MS-0808-9913	52.61202.003	Rubber Kit		3
64		Rubber Pad 27d*2t VP191		PL-PD-0714-0091	52.61201.001	Rubber Pad		4
65		Select Button PC+ABS-VS07A VP191s		PL-BT-0706-0166	51.61210.003	Select Button		1
66		Wear Plate (Front) VP191		M-MS-0808-7795	51.61214.001	Wear Plate		1
67		Wear Plate (Rear) VP191		M-MS-0808-7796	51.61215.001	Wear Plate		1

M-Model (VP912b-1M)

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Cable Power Cord1830mm SP30+IS14		A-PC-0106-0272	42.50115.001	POWER CORD		1

P-Model (VP912b-1P)

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord 1830mm SP30+IS14		A-PC-0106-0272	42.50115.001	POWER CORD		1

G-Model (VP912b-1G)

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord 1.8M+0.1M Color CS-VS08 China		A-PC-0106-0187	42.50126.001	POWER CORD		1
2	**Documentation:**	Warrnaty Card S. Chinese Second Version ViewSonic		M-MS-0808-8773	36.58307.002	WARRANTY		1
3		Warranty Sticker S. Chinese		M-LB-0813-0737	36.58308.001	WARRANTY		1
4		Shipping Warranty Sticker S. Chinese ViewSonic		M-LB-0813-0739	36.58309.001	WARRANTY		1
5	**Packing:**	PE Bag LDPE 820*850*0.05t VP191/191b (For Carton)		M-MS-0808-8794	51.61219.001	PE BAG		1

A-Model (VP912b-1A)

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord 1830mm SP30+IS14		A-PC-0106-0272	42.50115.001	POWER CORD		1

E-Model (VP912b-1E)

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord 1830mm SP-023+IS14 EUR.		A-PC-0106-0271	42.50112.001	POWER CORD		1

BOM LIST (VP912b-1)

ViewSonic Model Number: VLCDS25973

Rev: 1b

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
1	VP912b-1	DC.61214.003	D.C. AUO M190EN04 V4 W/GM5321 CS-VS08 VP9		1
2	M-LB-0813-1064	35.61201.004	Label Spec 120*50mm VP912b TCO99		1
3	M-LB-0813-0781	35.61203.001	LABEL BAR CODE 50*25mm VP191		1
4	M-MS-0808-8299	51.58711.002	NAMEPLATE ELLIPSE CS-VS08 ViewSonic		1
5	M-CV-0830-2426	51.61203.002	OVAL CAP PC+ABS-VS08A VP191b		1
6	M-CV-0830-2431	51.61212.002	HINGE CAP-4 PC+ABS-VS08 VP191b		1
7	#N/A	70.61201.021	ASSY DISPLAY AUO M190EN04 V4 W/GM5321 CS-VS08 VP912b		1
8	M-LB-0813-1016	35.00010.002	LABEL CAUTION HIGH VOLTAGE 25.4*19mm		1
9	M-LB-0813-0736	35.58304.001	LABEL BARCODE 40*14 ViewSonic		1
10	M-MS-0808-7800	35.61202.001	BIRD LOGO AL E015-004 "ViewSonic"		1
11	M-00000685	35.61204.002	COSMETIC STRIP ADHESIVE 180*10*0.3(t)mm P		1
12	M-LB-0830-0726	35.61205.001	HI-POT TEST LABLE F 10mm VP191/191b		1
13	#N/A	39.61205.003	DDC RECORDER VP912b FOR GM5321		1
14	M-MS-0808-7798	41.53615.001	EMI Tape (80560) 30*50mm		2
15	M-MS-0808-9541	41.54002.002	EMI GASKET UGT-7-0.5-8mm		2
16	M-MS-0808-7799	41.54612.001	EMI Tape (80560) 25*30mm		6
17	M-WR-0828-6657	42.61206.A01	W.A. 30P UL 20276#28 160mm VP912		1
18	M-WR-0828-0716	42.61202.001	W.A. 10/6P UL1007 #24 50mm VP191(INV)		1
19	M-WR-0828-0717	42.61203.001	W.A. 4P UL1007 #24 250mm VP191(POWER)		1
20	M-WR-0828-0718	42.61204.001	W.A. 4P UL1007 #18 VP191(SWT)		1
21	M-WR-0828-0719	42.61205.001	W.A. 3P UL1007 #18 50mm VP191(INLET)		1
22	B-SB-0221-0690	44.61801.001	PCBA INVERTER PLCD 0819402A;EMAX-AUEN02		1
23	A-AD-0114-0242	44.61103.002	OPEN FRAME IN:100-240V OUT:12V/4.16A "TIGER POWER"		1
24	E-00001527	48.61202.002	TFT LCD 19" 1280*1024 AUO M190EN04 V4		1
25	M-MS-0808-8797	51.00014.002	FILAMENT TAPE 3M NO.8915 25mm*55M		0.0033
26	#N/A	51.59911.001	TRANSPARENT ADHESIVE TAPE 12mm*0.05mm*50m		0.003
27	C-FP-0301-1078	51.61201.004	FRONT COVER PC+ABS-VS08A VP912b		1
28	PL-BT-0706-0134	51.61210.002	SELECT BUTTON PC+ABS-VS08 VP191b		1
29	M-MS-0808-9539	51.61211.001	LED LENS PMMA VP191		1
30	M-MS-0808-7797	51.61216.001	MYLAR ADHESIVE t=0.3mm VP191		1
31	P-BX-0601-1083	51.61218.002	PC 30*12*0.65t mm VP191F		3
32	M-MS-0808-9552	51.61217.001	MYLAR PROTECT FILM 400*315 0.1t		1
33	#N/A	51.62709.002	MYLAR ADHESIVE 150*45*0.25t VG710		1
34	M-MS-0808-9912	52.59901.001	RUBBER 35*10*4mm		2
35	M-MS-0808-9914	52.61202.002	RUBBER KIT SILICONE 20*10*3.5mm		2
36	M-MS-0808-9913	52.61202.003	RUBBER KIT SILICONE 20*10*7.0mm		2
37	HW-00001424	61.61201.003	LCD BRKT-MB GM5321 SECC 1.0t VP191/912		1
38	HW-00001425	61.61202.002	SHIELDING BRKT-MB MST9151B SECC 1.0t VP19		1
39	M-MS-0808-9559	61.61203.001	SHIELDING PLATE-INV Tineplate 0.3t VP191		1
40	C-00001526	75.61201.004	ASSY REAR COVER-MB GM5321 CS-VS08A VP191b		1
41	C-00001351	51.61202.004	REAR COVER-MB GM5321 PC+ABS-VS08A VP191b/912b		1
42	M-BK-0805-0023	61.00042.001	LOCK BRKT+CAP SECC 0.8t		1
43	B-CB-0206-0158	80.61102.001	PCBA CTRL BD FOR VP171		1
44	#N/A	00.61102.001	BARE PCB L:2 CTRL BD VP171		1
45	#N/A	09.00000.042	DIODE LED 19-22SOVGC/TR8 "EVERLIGHT"		1
46	#N/A	35.00016.001	LABEL BARCODE 6*38mm BLANK		1
47	#N/A	42.61101.001	W.A. FFC 10P 26cm PCB TO CTRL VP171&VP191		1
48	#N/A	43.58423.301	SWITCH PUSH STS-07-A DC15V 20mA "HCH"	SW1,SW2,SW3,SW4	5
49	M-MS-0808-8797	51.00014.002	FILAMENT TAPE 3M NO.8915 25mm*55M		0.00027
50	#N/A	51.59911.001	TRANSPARENT ADHESIVE TAPE 12mm*0.05mm*50m		0.003
51	B-00001423	80.61205.003	PCBA MAIN BD VP912 FOR "GM5321+AP1501"		1
52	#N/A	00.61104.B01	BARE PCB L:2 MAIN BD FOR VP GM5321		1
53	#N/A	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLOGY"	R117,R118,R119,R137,R1,R245,R246,R301.R46,R4	17
54	#N/A	01.10039.201	RES RD 10 5% 1/10W CHIP #0805	R285,R286,R287,R288.	4
55	#N/A	01.10136.501	RES RP 100 5% 1/16W #0603	R14.	1
56	#N/A	01.10236.502	RES RP 1K 5% 1/16W #0603;"TA-I TECHNOLOGY"	R12,R130,R144,R223.R224	5
57	#N/A	01.10236.503	RES RP 1K 5% 1/16W X4 V8V 8P SMD(MATSUSHITA/KOA/HOKURIKU/TA-I)-TA-I	RP1,RP4.	2
58	#N/A	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNOLOGY"	R124,R30,R60,R61,R62,R69,R70,R75,R94,R95,	10
59	#N/A	01.10536.501	RES RP 1M 5% 1/16W CHIP#0603	R101.	1
60	#N/A	01.20116.501	RES RP 200 1% 1/16W CHIP #0603	R17.	1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
61	#N/A	01.22036.501	RES RP 22 5% 1/16W CHIP #0603	R100,R162,R163,R176,R177,R181,R182,R271,R278,R28,R284,R29,R306,R307,R33,R34,R39,R40,R41,R42,	20
62	#N/A	01.22136.501	RES RP 220 5% 1/16W CHIP #0603;"TA-I TECHNOLOGY"	R302,R304.	2
63	#N/A	01.22236.501	RES RP 2.2K 5% 1/16W CHIP #0603	R178,R179,R269,R270,R276,R277,R282,R283,R31,R32,R37,R38,	12
64	#N/A	01.22236.502	RES RP 2.2K 5% 1/16W X4 V8V 8P SMD	RP2,RP3.	2
65	#N/A	01.24116.501	RES RP 249 1% 1/16W CHIP #0603	R64.	1
66	#N/A	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOLOGY"	R152,R153.R154,R155,R233,R234,R43,R44,	8
67	#N/A	01.33116.501	RES RP 330 1% 1/16W CHIP #0603	R18.	1
68	#N/A	01.39116.501	RES RP 390 1% 1/16W CHIP #0603	R135.	1
69	#N/A	01.47236.501	RES RP 4.7K 5% 1/16W CHIP #0603	R131,R160,R161,R235,R264,R265,R268,R272,R275,R279,R303,R305.	12
70	#N/A	01.47934.501	RES RP 4.7 5% 1/4W CHIP #1206	R52,R53,R54.	3
71	#N/A	01.51136.501	RES RP 510 5% 1/16W CHIP #0603;"TA-I TECHNOLOGY"	R123.	1
72	#N/A	01.75016.501	RES RP 75 1% 1/16W CHIP #0603;"TA-I TECHNOLOGY"	R127,R128,R129,R164,R165,R166.R49,R50,R51,	9
73	#N/A	01.75139.501	RES RP 750 5% 1/10W CHIP #0805	R142.R143,	2
74	#N/A	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 deg	C106,C116.C17,C95,C96,CT1,CT10,CT11,CT12,CT13,CT19,CT20,CT23,CT24,CT25,CT6,CT9,	17
75	#N/A	02.10747.101	CAP CC 0.01uF 10% 50V X7R #0603;"YCTC""TEAM YOUNG"	C132,C133,C135,C137,C182, C184.	6
76	#N/A	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC""TEAM YOUNG"	C10,C100,C101,C102,C103,C105,C107,C109,C111,C115,C118,C126,C128,C130,C139,C14,C140,C141,C144,C145,C153,C154,C155,C157,C158,C159,C16,C160,C170,C171,C172,C173,C174,C175,C176,C177,C178,C179,C18,C180.C181,C183,C185,C19,C20,C22,C23,C24,C31,C32,C33,C34,C36,C38,C39,C40,C41,C42,C43,C44,C45,C46,C47,C48,C49,C5,C50,C51,C52,C53,C56,C57,C58,C59,C6C60,C63,C64,C65,C66,C67,C68,C69,C7,C70,C75,C76,C77,C78,C79,C8,C80,C82,C83,C84,C85,C86,C87,C88,C89,C9,C90,C91,C92,C93,C94,C97,C98,C99,	109
77	#N/A	02.10987.101	CAP CC 1uF +80%-20% 16V Y5V #0603	C113.	1
78	#N/A	02.20437.101	CAP CC 20pF 5% 50V NPO CHIP #0603	C73,C74.	2
79	#N/A	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM YOUNG"	C147,C148,C149,C150,C151,C152.	6

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
80	#N/A	02.22537.102	CAP CC 220pF 5% 50V CHIP #0603	C54,C55,C61,C62,C71,C72.	6
81	#N/A	02.47174.404	CAP CE 470u 20% 16V 8*11.5 105 Degree RAD	CT2,CT22,CT26,CT3,CT5,CT7,	6
82	#N/A	02.47983.101	CAP CC 4.7uF +80%-20% 10V Y5V CHIP #0805	C108,C110,C112,C127,C129,C131.	6
83	#N/A	03.00010.401	INDCTR BEAD CHIP #1206 MLB-321611-0070A-N1 "MAG LAYERS"	FB1,FB2,FB3,FB4,FB5,FB6,FB7.	7
84	#N/A	03.15100.301	INDCTR CHOKE 150uH 20% 3A DIP A0060D1 "ARONA"	L4.	1
85	#N/A	03.22040.301	INDCTR CHOKE COIL 22u 10% 3A DIP A00601C2	L2,L20,L5,	3
86	#N/A	07.14318.001	XTAL 14.318MHz HC-49S HALF SIZE "鴻星"	Y1.	1
87	#N/A	08.2N390.603	TRANSTR PNP GENERAL PURPOSE 2N3906 SST3 "	Q4,Q5,	2
88	#N/A	08.DTC14.401	TRNSTR NPN DTC144W(SMT3) 100nA; "ROHM"	Q1,Q14,Q15,Q16,Q17,Q18,Q19,Q2,Q9.	9
89	#N/A	09.1N582.201	DIODE IN5822 SCHOTTKY RECTIFIER DO201AD	D1.	1
90	#N/A	09.1PS22.601	DIODE HIGH-SPEED 1PS226 SMD "PHILIPS"	D10,D11,D12,D13,D14,D15,D16,D17,D18,D19.D4,D5,D6,D7,D8,D9	16
91	#N/A	09.DAN20.2K1	DIODE ARRAY DAN202K SMD; "ROHM"	D2,D20.D3,	3
92	#N/A	11.044M2.304	CNNT M 4P 2.5mm RT/LEAD TU3001WNR-4P "TYU"	JP2.	1
93	#N/A	11.101F4.701	CNNT 10P FPC 1.0mm RT/SMD FPC1S10B11R03 "	JP6.	1
94	#N/A	11.102M2.303	CNNT 10P 2.0mm TU2001WNR-10 RT/DIP;"TYU"	J6.	1
95	#N/A	11.155F2.205	CNNT D-SUB 15P RT/LEAD BLUE PC99 VGA SBFR	CN1.CN2,	2
96	M-MS-0808-9904	11.299F2.211	CNNT DVI-I F 29P 1.91mm RT/LEAD HELM QH11	CN5.	1
97	#N/A	11.302M2.301	CNNT M 30P 2mm RT/LEAD P220-2*15-R ;"LCU"	JP9.	1
98	E-IC-0401-2771	20.24LC2.1A1	IC CMOS 24LC21A EEPROM 128*8 BIT 8SOIC	U4,U5,U8.	3
99	#N/A	20.74LVC.121	IC CMOS 74LVC126A BUS BUFFER GATE "TI""TSSOP";"T.I"	U14.	1
100	#N/A	20.78D05.001	IC 78D05 LINEAR VOLATGE REGULATE TO252"UTC"	U31.	1
101	#N/A	20.AIC10.842	IC AIC1084:(TO252) 5A ADJUSTABLE REGULATOR	U2.	1
102	#N/A	20.AP150.101	IC AP1501 5V SWITCHING REGULATOR SMD 150K	U1.	1
103	#N/A	20.GM532.101	IC GM5321 A+D INTERFACE SXGA 208P PQFP	U6.	1
104	#N/A	20.IRF72.041	IC PMOS IRF7204 SWITCHER VOLTAGE 8SO "IRTRONIC"	Q11.	1
105	#N/A	20.LD111.701	IC LD1117 LOW DROP FIXED-1.8V VOLTAGE REG	U3.	1
106	#N/A	20.M6132.3FP	IC VIDEO SWITCH M61323FP 36FP 36SSOP"MITS	U10.	1
107	#N/A	20.PI5C3.251	IC PI5C3257 BUS SWITCH QUAD 2:1 MUX/DEMUX	U12.	1
108	#N/A	21.24LC1.601	IC EEPROM 24LC16B/SN M 2K*8 BIT IIC BUS 8	U11.	1
109	#N/A	22.61203.002	PROGRAMMED IC VP912 "GM5321"		1
110	#N/A	21.Pm39L.V02	IC Pm39LV020 CMOS FLASH MEMORY 2M BIT 3.0	U7.	1
111	#N/A	39.61206.002	FW BIOS SOURCE CODE VP912 FOR GM5321		1
112	#N/A	35.00017.001	LABEL BIOS 13*11mm BLANK		1
113	#N/A	35.00018.001	LABEL BARCODE 13*26.5mm BLANK		1
114	#N/A	35.59907.001	LABEL SPEC ASIC 13*11mm BLANK For VIEWSONIC		1
115	#N/A	75.55104.002	ASSY BALL SWITCH TFT5010"PC940"	JP4.	1
116	M-MS-0808-6287	85.005AG.075	SCREW HEX I/O #4-40*H5*L7.5 Ni NYLOK	VGA*4,	6
117	M-SCW-0824-6827	85.1C124.060	SCREW PAN MECH W/T M4*6 Ni	GND-B.L*1.	1
118	M-SCW-0824-0651	85.1F123.060	SCREW PAN MECH W/SF M3*6 Ni	E.I-B.L*2,E.M-B.L*4,E.P-B.L*4.	10
119	M-SCW-0824-6826	85.1F323.080	SCREW PAN MECH W/SF M3*8 BLACK		4
120	M-SCW-0824-6753	85.4A323.040	SCREW FLAT MECH M3*4 BLACK	S.M-B.L*3.	3
121	M-SCW-0824-6961	85.1H123.040	SCREW PAN MECH W/SPG M3*4 Ni	S.I-B.L*2,S.M-B.L*7.	9
122	#N/A	85.ZA123.060	SCREW M3*6	B.L-LCD*4.	4
123	C-BS-0303-0531	70.61202.002	ASSY STAND CS-VS08 VP191b		1
124	M-CV-0830-2429	51.61206.002	HINGE CAP-3 PC+ABS-VS08 VP191b		1
125	M-MS-0808-7823	51.61207.002	FRONT ARM PC+ABS-VS08 VP191b		1
126	M-MS-0808-7824	51.61208.002	REAR ARM PC+ABS-VS08 VP191b		1
127	PL-CL-0710-0033	51.61213.002	CLIP NYLON-VS08 VP191b		3
128	M-MS-0808-9911	51.61220.001	PE BAG LDPE 150*65*0.04t mm VP171/191 Ser		2
129	PL-PD-0714-0064	52.00003.001	RUBBER FOOT 25*10*1.2t		1
130	PL-PD-0714-0091	52.61201.001	RUBBER PAD 27d*2t VP191		4
131	M-MS-0808-8772	61.61204.001	BASE PLATE SPHC 3.0t Zn		1
132	M-MS-0808-8755	61.61205.001	HINGE VP191		1
133	M-CV-0830-2432	75.61202.002	ASSY HINGE CAP PC+ABS-VS08 VP191b		1
134	M-CV-0830-2427	51.61204.002	HINGE CAP-1 PC+ABS-VS08 VP191b		1
135	M-CV-0830-2428	51.61205.002	HINGE CAP-2 PC+ABS-VS08 VP191b		1
136	C-BS-0303-0377	75.61204.002	ASSY BASE COVER CS-VS08 VP191		1
137	M-CV-0830-2430	51.61209.002	BASE COVER PC+ABS-VS08 VP191b		1
138	M-MS-0808-7795	51.61214.001	WEAR PLATE (FRONT) VP191		1
139	M-MS-0808-7796	51.61215.001	WEAR PLATE (REAR) VP191		1
140	M-SCW-0824-6753	85.4A323.040	SCREW FLAT MECH M3*4 BLACK	Hng-C1.H*4.	4
141	M-SCW-0824-0868	85.4A623.080	SCREW FLAT MECH M3*8 BLACK NYLOK	P.B-Hng*1.	1
142	M-SCW-0824-0869	85.4A624.080	SCREW FLAT MECH M4*8 BLACK NYLOK	P.B-Hng*4.	4

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
143	M-SCW-0824-0847	85.5A124.080	SCREW BINDING MECH M4*8 Ni	Hng-C.R*4.	4
144	M-SCW-0824-6755	85.UA123.080	DOUBLE THREADS SCREW PAN TAP M3*8 Ni	Au.R-A.F*2.Hng-Au.F*2,	4
145	M-SCW-0824-0845	85.YA323.080	SCREW FLAT TAP M3*8 BLACK	P.B-C.B*3.	3
146	#N/A	DP.61211.00A	D.P. CS-VS08 VP912b,AUO M190EN04,USA		1
147	DC-00000425	35.58305.001	MERCURY WARNING WORDING ON CARTON BOX FOR		1
148	M-LB-0813-1017	35.59906.001	LABEL 210*65mm BLANK FOR PALLET		0.0625
149	A-PC-0106-0272	42.50115.001	CABLE POWER CORD 1830mm SP30+IS14		1
150	#N/A	51.00069.001	PACKING STRAP 12MM*2000M*0.6MM		0.00072
151	#N/A	51.00070.001	PE STRETCH FILM 500MM*1500M*0.02MM		0.0013
152	#N/A	51.00080.001	3 INCH TRANSPARENT ADHESIVE TAPE (600M)		0.0021
153	#N/A	51.59912.001	ViewSonic security tape 50t*100000mm		0.01
154	#N/A	55.55103.001	CORNER BOARD 40*40*5*1050mm		0.0625
155	#N/A	55.57202.001	CORNER BOARD 40*40*5*960mm		0.0625
156	#N/A	55.61205.001	CORNER BOARD 40*40*5*2040mm VP191		0.125
157	#N/A	55.61204.002	COVER PALLET AB FLUTE 114*102*0.7cm FOR V		0.03125
158	#N/A	58.61201.001	WOOD PALLET 1140*1020*115 for VP191		0.03125
159	#N/A	70.612DP.011	COMMON PACKAGE CS-VS08 VP912b,AUO M190EN0		1
160	M-LB-0813-0706	35.58203.001	LABEL CARTON 76*76mm		1
161	A-CD-VP912B	36.61202.005	USER GUIDE+CD VP912b (AU EN04V1)		1
162	A-VC-0101-0262	42.59902.012	CABLE DVI-D 1.8M 2-CORE MOLEX		1
163	CB-00000183	42.59910.A01	CABLE VGA 15P 1800mm 2*75mm 2-CORE		1
164	P-00000334	51.00081.009	PE BAG LDPE 570*850*0.1t W/HOLE		1
165	P-BX-0601-1065	55.61201.004	CARTON AB-18 490*265*440 VP912b		1
166	P-FM-0602-0579	56.61201.001	CUSHION R EPS VP191		1
167	P-FM-0602-0580	56.61202.001	CUSHION L EPS VP191		1

BOM LIST (VP912s-1)

ViewSonic Model Number: VLCDS25973

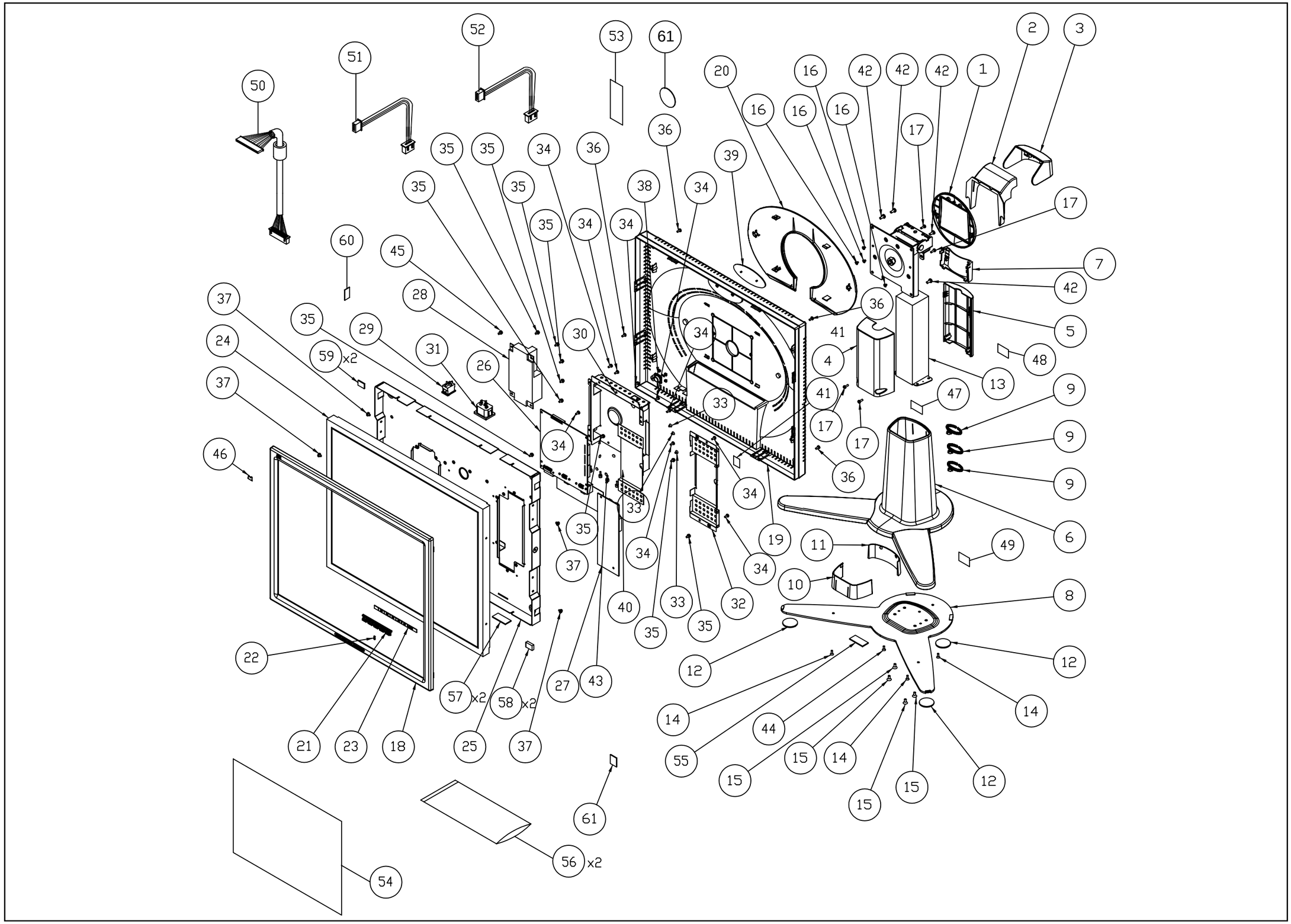
Rev: 1b

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
1	VP912s-1	DC.61214.004	D.C. AUO M190EN04 V4 W/GM5321 VP912s		1
2	M-LB-0813-1065	35.61201.005	Label Spec 120*50mm VP912s TCO03		1
3	M-LB-0813-0781	35.61203.001	LABEL BAR CODE 50*25mm VP191		1
4	M-MS-0808-8116	51.58711.001	NAMEPLATE ELLIPSE ViewSonic		1
5	M-CV-0830-2452	51.61203.003	OVAL CAP PC+ABS-VS06A VP191s		1
6	M-CV-0830-2455	51.61212.003	HINGE CAP-4 PC+ABS-VS06 VP191s		1
7	#N/A	70.61201.022	ASSY DISPLAY AUO M190EN04 V4 W/GM5321 VP9		1
8	M-LB-0813-1016	35.00010.002	LABEL CAUTION HIGH VOLTAGE 25.4*19mm		1
9	M-LB-0813-0736	35.58304.001	LABEL BARCODE 40*14 ViewSonic		1
10	M-MS-0808-7800	35.61202.001	BIRD LOGO AL E015-004 "ViewSonic"		1
11	M-00000174	35.61204.003	COSMETIC STRIP ADHESIVE 180*10*0.3(t)mm P		1
12	M-LB-0830-0726	35.61205.001	HI-POT TEST LABLE F 10mm VP191/191b		1
13	#N/A	39.61205.004	DDC RECORDER VP912s FOR GM5321		1
14	M-MS-0808-7798	41.53615.001	EMI Tape (80560) 30*50mm		2
15	M-MS-0808-9541	41.54002.002	EMI GASKET UGT-7-0.5-8mm		2
16	M-MS-0808-7799	41.54612.001	EMI Tape (80560) 25*30mm		6
17	M-WR-0828-6657	42.61206.A01	W.A. 30P UL 20276#28 160mm VP912		1
18	M-WR-0828-0716	42.61202.001	W.A. 10/6P UL1007 #24 50mm VP191(INV)		1
19	M-WR-0828-0717	42.61203.001	W.A. 4P UL1007 #24 250mm VP191(POWER)		1
20	M-WR-0828-0718	42.61204.001	W.A. 4P UL1007 #18 VP191(SWT)		1
21	M-WR-0828-0719	42.61205.001	W.A. 3P UL1007 #18 50mm VP191(INLET)		1
22	B-SB-0221-0690	44.61801.001	PCBA INVERTER PLCD 0819402A;EMAX-AUEN02		1
23	A-AD-0114-0242	44.61103.002	OPEN FRAME IN:100-240V OUT:12V/4.16A "TIGER POWER"		1
24	E-00001527	48.61202.002	TFT LCD 19" 1280*1024 AUO M190EN04 V4		1
25	M-MS-0808-8797	51.00014.002	FILAMENT TAPE 3M NO.8915 25mm*55M		0.0033
26	#N/A	51.59911.001	TRANSPARENT ADHESIVE TAPE 12mm*0.05mm*50m		0.003
27	C-FP-0301-1071	51.61201.005	FRONT COVER PC+ABS-VS07A VP912s		1
28	PL-BT-0706-0166	51.61210.003	SELECT BUTTON PC+ABS-VS07A VP191s		1
29	M-MS-0808-9539	51.61211.001	LED LENS PMMA VP191		1
30	M-MS-0808-7797	51.61216.001	MYLAR ADHESIVE t=0.3mm VP191		1
31	P-BX-0601-1083	51.61218.002	PC 30*12*0.65t mm VP191F		3
32	M-MS-0808-9552	51.61217.001	MYLAR PROTECT FILM 400*315 0.1t		1
33	#N/A	51.62709.002	MYLAR ADHESIVE 150*45*0.25t VG710		1
34	M-MS-0808-9912	52.59901.001	RUBBER 35*10*4mm		2
35	M-MS-0808-9914	52.61202.002	RUBBER KIT SILICONE 20*10*3.5mm		2
36	M-MS-0808-9913	52.61202.003	RUBBER KIT SILICONE 20*10*7.0mm		2
37	HW-00001424	61.61201.003	LCD BRKT-MB GM5321 SECC 1.0t VP191/912		1
38	HW-00001425	61.61202.002	SHIELDING BRKT-MB MST9151B SECC 1.0t VP19		1
39	M-MS-0808-9559	61.61203.001	SHIELDING PLATE-INV Tineplate 0.3t VP191		1
40	#N/A	75.61201.005	ASSY REAR COVER-MB GM5321 CS-VS06A VP191s		1
41	C-00001352	51.61202.005	REAR COVER-MB GM5321 PC+ABS-VS06A VP191s/912s		1
42	M-BK-0805-0023	61.00042.001	LOCK BRKT+CAP SECC 0.8t		1
43	B-CB-0206-0158	80.61102.001	PCBA CTRL BD FOR VP171		1
44	#N/A	00.61102.001	BARE PCB L:2 CTRL BD VP171		1
45	#N/A	09.00000.042	DIODE LED 19-22SOVGC/TR8 "EVERLIGHT"		1
46	#N/A	35.00016.001	LABEL BARCODE 6*38mm BLANK		1
47	#N/A	42.61101.001	W.A. FFC 10P 26cm PCB TO CTRL VP171&VP19		1
48	#N/A	43.58423.301	SWITCH PUSH STS-07-A DC15V 20mA "HCH"	SW1,SW2,SW3,SW4,SW5	5
49	M-MS-0808-8797	51.00014.002	FILAMENT TAPE 3M NO.8915 25mm*55M		0.00027
50	#N/A	51.59911.001	TRANSPARENT ADHESIVE TAPE 12mm*0.05mm*50m		0.003
51	B-00001423	80.61205.003	PCBA MAIN BD VP912 FOR "GM5321+AP1501"		1
52	#N/A	00.61104.B01	BARE PCB L:2 MAIN BD FOR VP GM5321		1
53	#N/A	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLOGY"	R117,R118,R119,R137,R1,R245,R246,R301.R46,R4	17
54	#N/A	01.10039.201	RES RD 10 5% 1/10W CHIP #0805	R285,R286,R287,R288.	4
55	#N/A	01.10136.501	RES RP 100 5% 1/16W #0603	R14.	1
56	#N/A	01.10236.502	RES RP 1K 5% 1/16W #0603;"TA-I TECHNOLOGY"	R12,R130,R144,R223.R224	5
57	#N/A	01.10236.503	RES RP 1K 5% 1/16W X4 V8V 8P SMD(MATSUSHITA/KOA/HOKURIKU/TA-I)-TA-I	RP1,RP4.	2
58	#N/A	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNOLOGY"	R124,R30,R60,R61,R62,R69,R70,R75,R94,R95,	10
59	#N/A	01.10536.501	RES RP 1M 5% 1/16W CHIP#0603	R101.	1
60	#N/A	01.20116.501	RES RP 200 1% 1/16W CHIP #0603	R17.	1
61	#N/A	01.22036.501	RES RP 22 5% 1/16W CHIP #0603	R100,R162,R163,R176,R177,R181,R182,R271,R278,R28,R284,R29,R306,R307,R33,R34,R39,R40,R41,R42,	20
62	#N/A	01.22136.501	RES RP 220 5% 1/16W CHIP #0603;"TA-I TECHNOLOGY"	R302,R304.	2

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
63	#N/A	01.22236.501	RES RP 2.2K 5% 1/16W CHIP #0603	R178,R179,R269,R270,R276,R277,R282,R283,R31,R32,R37,R38,	12
64	#N/A	01.22236.502	RES RP 2.2K 5% 1/16W X4 V8V 8P SMD	RP2,RP3.	2
65	#N/A	01.24116.501	RES RP 249 1% 1/16W CHIP #0603	R64.	1
66	#N/A	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOLOGY"	R152,R153.R154,R155,R233,R234,R43,R44,	8
67	#N/A	01.33116.501	RES RP 330 1% 1/16W CHIP #0603	R18.	1
68	#N/A	01.39116.501	RES RP 390 1% 1/16W CHIP #0603	R135.	1
69	#N/A	01.47236.501	RES RP 4.7K 5% 1/16W CHIP #0603	R131,R160,R161,R235,R264,R265,R268,R272,R275,R279,R303,R305.	12
70	#N/A	01.47934.501	RES RP 4.7 5% 1/4W CHIP #1206	R52,R53,R54.	3
71	#N/A	01.51136.501	RES RP 510 5% 1/16W CHIP #0603;"TA-I TECHNOLOGY"	R123.	1
72	#N/A	01.75016.501	RES RP 75 1% 1/16W CHIP #0603;"TA-I TECHNOLOGY"	R127,R128,R129,R164,R165,R166.R49,R50,R51,	9
73	#N/A	01.75139.501	RES RP 750 5% 1/10W CHIP #0805	R142.R143,	2
74	#N/A	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 deg	C106,C116.C17,C95,C96,CT1,CT10,CT11,CT12,CT13,CT19,CT20,CT23,CT24,CT25,CT6,CT9,	17
75	#N/A	02.10747.101	CAP CC 0.01uF 10% 50V X7R #0603;"YCTC""TEAM YOUNG"	C132,C133,C135,C137,C182,C184.	6
76	#N/A	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC""TEAM YOUNG"	C10,C100,C101,C102,C103,C105,C107,C109,C111,C115,C118,C126,C128,C130,C139,C14,C140,C141,C144,C145,C153,C154,C155,C157,C158,C159,C16,C160,C170,C171,C172,C173,C174,C175,C176,C177,C178,C179,C18,C180.C181,C183,C185,C19,C20,C22,C23,C24,C31,C32,C33,C34,C36,C38,C39,C40,C41,C42,C43,C44,C45,C46,C47,C48,C49,C5,C50,C51,C52,C53,C56,C57,C58,C59,C6C60,C63,C64,C65,C66,C67,C68,C69,C7,C70,C75,C76,C77,C78,C79,C8,C80,C82,C83,C84,C85,C86,C87,C88,C89,C9,C90,C91,C92,C93,C94,C97,C98,C99,	109
77	#N/A	02.10987.101	CAP CC 1uF +80%-20% 16V Y5V #0603	C113.	1
78	#N/A	02.20437.101	CAP CC 20pF 5% 50V NPO CHIP #0603	C73,C74.	2
79	#N/A	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM YOUNG"	C147,C148,C149,C150,C151,C152.	6
80	#N/A	02.22537.102	CAP CC 220pF 5% 50V CHIP #0603	C54,C55,C61,C62,C71,C72.	6
81	#N/A	02.47174.404	CAP CE 470u 20% 16V 8*11.5 105 Degree RAD	CT2,CT22,CT26,CT3,CT5,CT7,	6
82	#N/A	02.47983.101	CAP CC 4.7uF +80%-20% 10V Y5V CHIP #0805	C108,C110,C112,C127,C129,C131.	6
83	#N/A	03.00010.401	INDCTR BEAD CHIP #1206 MLB-321611-0070A-N1 "MAG LAYERS"	FB1,FB2,FB3,FB4,FB5,FB6,FB7.	7
84	#N/A	03.15100.301	INDCTR CHOKE 150uH 20% 3A DIP A0060D1 "ARONA"	L4.	1
85	#N/A	03.22040.301	INDCTR CHOKE COIL 22u 10% 3A DIP A00601C2	L2,L20,L5,	3
86	#N/A	07.14318.001	XTAL 14.318MHz HC-49S HALF SIZE "鴻星"	Y1.	1
87	#N/A	08.2N390.603	TRANSTR PNP GENERAL PURPOSE 2N3906 SST3 "	Q4,Q5,	2
88	#N/A	08.DTC14.401	TRNSTR NPN DTC144W(SMT3) 100nA; "ROHM"	Q1,Q14,Q15,Q16,Q17,Q18,Q19,Q2,Q9.	9
89	#N/A	09.1N582.201	DIODE IN5822 SCHOTTKY RECTIFIER DO201AD	D1.	1
90	#N/A	09.1PS22.601	DIODE HIGH-SPEED 1PS226 SMD "PHILIPS"	D10,D11,D12,D13,D14,D15,D16,D17,D18,D19.D4,D5,D6,D7,D8,D9	16
91	#N/A	09.DAN20.2K1	DIODE ARRAY DAN202K SMD; "ROHM"	D2,D20.D3,	3
92	#N/A	11.044M2.304	CNNT M 4P 2.5mm RT/LEAD TU3001WNR-4P "TYU"	JP2.	1
93	#N/A	11.101F4.701	CNNT 10P FPC 1.0mm RT/SMD FPC1S10B11R03 "	JP6.	1
94	#N/A	11.102M2.303	CNNT 10P 2.0mm TU2001WNR-10 RT/DIP;"TYU"	J6.	1
95	#N/A	11.155F2.205	CNNT D-SUB 15P RT/LEAD BLUE PC99 VGA SBFR	CN1.CN2,	2

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
96	M-MS-0808-9904	11.299F2.211	CNNT DVI-I F 29P 1.91mm RT/LEAD HELM QH11	CN5.	1
97	#N/A	11.302M2.301	CNNT M 30P 2mm RT/LEAD P220-2*15-R ;"LCU"	JP9.	1
98	E-IC-0401-2771	20.24LC2.1A1	IC CMOS 24LC21A EEPROM 128*8 BIT 8SOIC	U4,U5,U8.	3
99	#N/A	20.74LVC.121	IC CMOS 74LVC126A BUS BUFFER GATE "TI""TSSOP";"T.I"	U14.	1
100	#N/A	20.78D05.001	IC 78D05 LINEAR VOLTAGE REGULATE TO252"UTC"	U31.	1
101	#N/A	20.AIC10.842	IC AIC1084:(TO252) 5A ADJUSTABLE REGULATOR	U2.	1
102	#N/A	20.AP150.101	IC AP1501 5V SWITCHING REGULATOR SMD 150K	U1.	1
103	#N/A	20.GM532.101	IC GM5321 A+D INTERFACE SXGA 208P PQFP	U6.	1
104	#N/A	20.IRF72.041	IC PMOS IRF7204 SWITCHER VOLTAGE 8SO "IRTRONIC"	Q11.	1
105	#N/A	20.LD111.701	IC LD1117 LOW DROP FIXED-1.8V VOLTAGE REG	U3.	1
106	#N/A	20.M6132.3FP	IC VIDEO SWITCH M61323FP 36FP 36SSOP"MITS	U10.	1
107	#N/A	20.PI5C3.251	IC PI5C3257 BUS SWITCH QUAD 2:1 MUX/DEMUX	U12.	1
108	#N/A	21.24LC1.601	IC EEPROM 24LC16B/SN M 2K*8 BIT IIC BUS 8	U11.	1
109	#N/A	22.61203.002	PROGRAMMED IC VP912 "GM5321"		1
110	#N/A	21.Pm39L.V02	IC Pm39LV020 CMOS FLASH MEMORY 2M BIT 3.0	U7.	1
111	#N/A	39.61206.002	FW BIOS SOURCE CODE VP912 FOR GM5321		1
112	#N/A	35.00017.001	LABEL BIOS 13*11mm BLANK		1
113	#N/A	35.00018.001	LABEL BARCODE 13*26.5mm BLANK		1
114	#N/A	35.59907.001	LABEL SPEC ASIC 13*11mm BLANK For VIEWSONIC		1
115	#N/A	75.55104.002	ASSY BALL SWITCH TFT5010"PC940"	JP4.	1
116	M-MS-0808-6287	85.005AG.075	SCREW HEX I/O #4-40*H5*L7.5 Ni NYLOK	B.L-DVI*2.B.L-VGA*4,	6
117	M-SCW-0824-6827	85.1C124.060	SCREW PAN MECH W/T M4*6 Ni	GND-B.L*1.	1
118	M-SCW-0824-0651	85.1F123.060	SCREW PAN MECH W/SF M3*6 Ni	E.I-B.L*2,E.M-B.L*4,E.P-B.L*4.	10
119	M-SCW-0824-6826	85.1F323.080	SCREW PAN MECH W/SF M3*8 BLACK		4
120	M-SCW-0824-6753	85.4A323.040	SCREW FLAT MECH M3*4 BLACK	S.M-B.L*3.	3
121	M-SCW-0824-6961	85.1H123.040	SCREW PAN MECH W/SPG M3*4 Ni	S.I-B.L*2,S.M-B.L*7.	9
122	#N/A	85.ZA123.060	SCREW M3*6	B.L-LCD*4.	4
123	C-BS-0303-0532	70.61202.003	ASSY STAND VS06 VP191s		1
124	M-CV-0830-2453	51.61206.003	HINGE CAP-3 PC+ABS-VS06 VP191s		1
125	M-MS-0808-8751	51.61207.003	FRONT ARM PC+ABS-VS06 VP191s		1
126	M-MS-0808-8752	51.61208.003	REAR ARM PC+ABS-VS06 VP191s		1
127	M-MS-0808-8753	51.61213.003	CLIP NYLON-VS06 VP191s		3
128	M-MS-0808-9911	51.61220.001	PE BAG LDPE 150*65*0.04t mm VP171/191 Ser		2
129	PL-PD-0714-0064	52.00003.001	RUBBER FOOT 25*10*1.2t		1
130	PL-PD-0714-0091	52.61201.001	RUBBER PAD 27d*2t VP191		4
131	M-MS-0808-8772	61.61204.001	BASE PLATE SPHC 3.0t Zn		1
132	M-MS-0808-8755	61.61205.001	HINGE VP191		1
133	M-CV-0830-2457	75.61202.003	ASSY HINGE CAP CS-VS06 VP191s		1
134	M-CV-0830-0297	51.61204.003	HINGE CAP-1 PC+ABS-VS06 VP191s		1
135	M-CV-0830-0298	51.61205.003	HINGE CAP-2 PC+ABS-VS06 VP191s		1
136	M-CV-0830-2456	75.61204.003	ASSY BASE COVER PC+ABS-VS06 VP191s		1
137	M-CV-0830-2454	51.61209.003	BASE COVER PC+ABS-VS06 VP191s		1
138	M-MS-0808-7795	51.61214.001	WEAR PLATE (FRONT) VP191		1
139	M-MS-0808-7796	51.61215.001	WEAR PLATE (REAR) VP191		1
140	M-SCW-0824-6753	85.4A323.040	SCREW FLAT MECH M3*4 BLACK	Hng-C1.H*4.	4
141	M-SCW-0824-0868	85.4A623.080	SCREW FLAT MECH M3*8 BLACK NYLOK	P.B-Hng*1.	1
142	M-SCW-0824-0869	85.4A624.080	SCREW FLAT MECH M4*8 BLACK NYLOK	P.B-Hng*4.	4
143	M-SCW-0824-0847	85.5A124.080	SCREW BINDING MECH M4*8 Ni	Hng-C.R*4.	4
144	M-SCW-0824-6755	85.UA123.080	DOUBLE THREADS SCREW PAN TAP M3*8 Ni	Au.R-A.F*2.Hng-Au.F*2,	4
145	M-SCW-0824-0845	85.YA323.080	SCREW FLAT TAP M3*8 BLACK	P.B-C.B*3.	3
146	#N/A	DP.61212.00A	D.P. VP912s,AUO M190EN04,USA		1
147	DC-00000425	35.58305.001	MERCURY WARNING WORDING ON CARTON BOX FOR		1
148	M-LB-0813-1017	35.59906.001	LABEL 210*65mm BLANK FOR PALLET		0.0625
149	A-PC-0106-0272	42.50115.001	CABLE POWER CORD 1830mm SP30+IS14		1
150	#N/A	51.00069.001	PACKING STRAP 12MM*2000M*0.6MM		0.00072
151	#N/A	51.00070.001	PE STRETCH FILM 500MM*1500M*0.02MM		0.0013
152	#N/A	51.00080.001	3 INCH TRANSPARENT ADHESIVE TAPE (600M)		0.0021
153	#N/A	51.59912.001	ViewSonic security tape 50t*100000mm		0.01
154	#N/A	55.55103.001	CORNER BOARD 40*40*5*1050mm		0.0625
155	#N/A	55.57202.001	CORNER BOARD 40*40*5*960mm		0.0625
156	#N/A	55.61205.001	CORNER BOARD 40*40*5*2040mm VP191		0.125
157	#N/A	55.61204.002	COVER PALLET AB FLUTE 114*102*0.7cm FOR V		0.03125
158	#N/A	58.61201.001	WOOD PALLET 1140*1020*115 for VP191		0.03125
159	#N/A	70.612DP.012	COMMON PACKAGE VP912s,AUO M190EN04		1
160	M-LB-0813-0706	35.58203.001	LABEL CARTON 76*76mm		1
161	A-CD-VP912S	36.61201.006	USER GUIDE +CD VP912s (AU EN04V1)		1
162	A-VC-0101-0262	42.59902.012	CABLE DVI-D 1.8M 2-CORE MOLEX		1
163	CB-00000183	42.59910.A01	CABLE VGA 15P 1800mm 2*75mm 2-CORE		1
164	P-00000334	51.00081.009	PE BAG LDPE 570*850*0.1t W/HOLE		1
165	P-BX-0601-1066	55.61201.005	CARTON AB-18 490*265*440 VP912s		1
166	P-FM-0602-0579	56.61201.001	CUSHION R EPS VP191		1
167	P-FM-0602-0580	56.61202.001	CUSHION L EPS VP191		1

8. Exploded Diagram And Spare Parts List



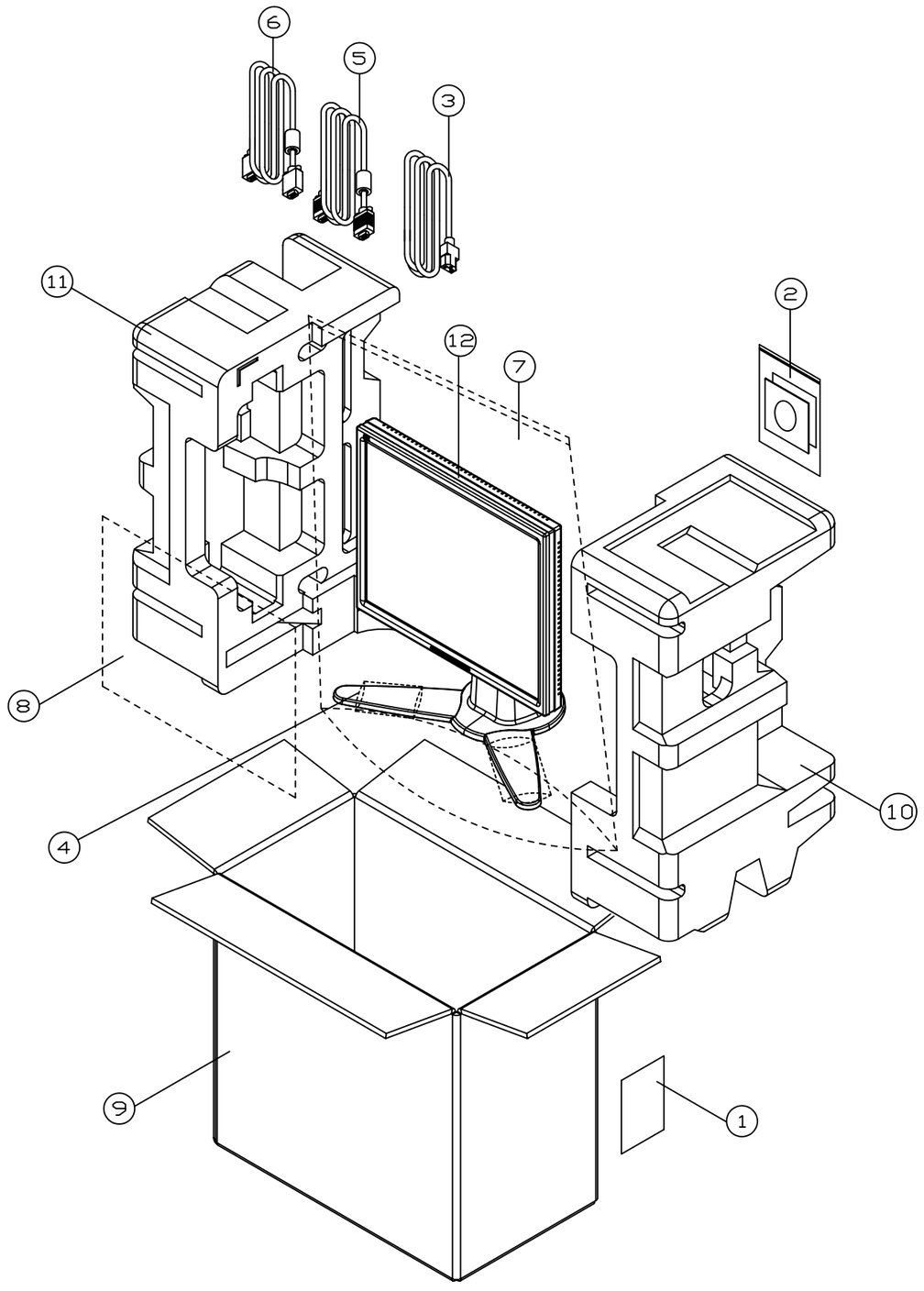
EXPLODED PART LIST (VP912b-1)

ViewSonic Model Number: VLCDS25

Rev: 1b

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	M-CV-0830-2427	51.61204.002	HINGE CAP-1 PC+ABS-VS08 VP191b	1
2	M-CV-0830-2428	51.61205.002	HINGE CAP-2 PC+ABS-VS08 VP191b	1
3	M-CV-0830-2429	51.61206.002	HINGE CAP-3 PC+ABS-VS08 VP191b	1
4	M-MS-0808-7823	51.61207.002	FRONT ARM PC+ABS-VS08 VP191b	1
5	M-MS-0808-7824	51.61208.002	REAR ARM PC+ABS-VS08 VP191b	1
6	M-CV-0830-2430	51.61209.002	BASE COVER PC+ABS-VS08 VP191b	1
7	M-CV-0830-2431	51.61212.002	HINGE CAP-4 PC+ABS-VS08 VP191b	1
8	M-MS-0808-8772	61.61204.001	BASE PLATE SPHC 3.0t Zn	1
9	PL-CL-0710-0033	51.61213.002	CLIP NYLON-VS08 VP191b	3
10	M-MS-0808-7795	51.61214.001	WEAR PLATE (FRONT) VP191	1
11	M-MS-0808-7796	51.61215.001	WEAR PLATE (REAR) VP191	1
12	PL-PD-0714-0091	52.61201.001	RUBBER PAD 27d*2t VP191	4
13	M-MS-0808-8755	61.61205.001	HINGE VP191	1
14	M-SCW-0824-0845	85.YA323.080	SCREW FLAT TAP M3*8 BLACK	3
15	M-SCW-0824-0869	85.4A624.080	SCREW FLAT MECH M4*8 BLACK NYLOK	4
16	M-SCW-0824-6753	85.4A323.040	SCREW FLAT MECH M3*4 BLACK	4
17	M-SCW-0824-6755	85.UA123.080	DOUBLE THREADS SCREW PAN TAP M3*8 Ni	4
18	C-FP-0301-1078	51.61201.004	FRONT COVER PC+ABS-VS08A VP912b	1
19	C-00001351	51.61202.004	REAR COVER-MB GM5321 PC+ABS-VS08A VP191b/912b	1
20	M-CV-0830-2426	51.61203.002	OVAL CAP PC+ABS-VS08A VP191b	1
21	PL-BT-0706-0134	51.61210.002	SELECT BUTTON PC+ABS-VS08 VP191b	1
22	M-MS-0808-9539	51.61211.001	LED LENS PMMA VP191	1
23	B-CB-0206-0158	80.61102.001	PCBA CTRL BD FOR VP171	1
24	E-00001527	48.61202.002	TFT LCD 19" 1280*1024 AUO M190EN04 V4	1
25	HW-00001424	61.61201.003	LCD BRKT-MB GM5321 SECC 1.0t VP191/912	1
26	B-00001423	80.61205.003	PCBA MAIN BD VP912 FOR "GM5321+AP1501"	1
27	B-SB-0221-0690	44.61801.001	PCBA INVERTER PLCD 0819402A;EMAX-AUEN02	1
28	A-AD-0114-0242	44.61103.002	OPEN FRAME IN:100-240V OUT:12V/4.16A "TIGER POWER"	1
29	M-WR-0828-0718	42.61204.001	W.A. 4P UL1007 #18 VP191(SWT)	1
30	HW-00001425	61.61202.002	SHIELDING BRKT-MB MST9151B SECC 1.0t VP191	1
31	M-WR-0828-0719	42.61205.001	W.A. 3P UL1007 #18 50mm VP191(INLET)	1
32	M-MS-0808-9559	61.61203.001	SHIELDING PLATE-INV Tineplate 0.3t VP191	1
33	M-SCW-0824-6753	85.4A323.040	SCREW FLAT MECH M3*4 BLACK	3
34	M-SCW-0824-6961	85.1H123.040	SCREW PAN MECH W/SPG M3*4 Ni	9
35	M-SCW-0824-0651	85.1F123.060	SCREW PAN MECH W/SF M3*6 Ni	10
36	M-SCW-0824-6826	85.1F323.080	SCREW PAN MECH W/SF M3*8 BLACK	4
37	M-SCW-0824-6829	85.ZA123.080	SCREW WCH/W MECH M3*8 Ni	4
38	M-BK-0805-0023	61.00042.001	LOCK BRKT+CAP SECC 0.8t	1
39	M-MS-0808-8299	51.58711.002	NAMEPLATE ELLIPSE CS-VS08 ViewSonic	1
40	M-MS-0808-7797	51.61216.001	MYLAR ADHESIVE t=0.3mm VP191	1
41	M-LB-0813-1016	35.00010.002	LABEL CAUTION HIGH VOLTAGE 25.4*19mm	1
42	M-SCW-0824-0847	85.5A124.080	SCREW BINDING MECH M4*8 Ni	4
43	M-MS-0808-6287	85.005AG.075	SCREW HEX I/O #4-40*H5*L7.5 Ni NYLOK	6
44	M-SCW-0824-0868	85.4A623.080	SCREW FLAT MECH M3*8 BLACK NYLOK	1
45	M-SCW-0824-6827	85.1C124.060	SCREW PAN MECH W/T M4*6 Ni	1
46	M-MS-0808-7800	35.61202.001	BIRD LOGO AL E015-004 "ViewSonic"	1
47	M-LB-0813-0781	35.61203.001	LABEL BAR CODE 50*25mm VP191	1
48	M-LB-0813-0736	35.58304.001	LABEL BARCODE 40*14 ViewSonic	1
49	M-LB-0813-0783	35.61201.002	LABEL SPEC 120*50mm VP191b	1
50	M-WR-0828-0725	42.61201.001	W.A. 30P UL20276 #28 250mm VP191	1
51	M-WR-0828-0716	42.61202.001	W.A. 10/6P UL1007 #24 50mm VP191(INV)	1
52	M-WR-0828-0717	42.61203.001	W.A. 4P UL1007 #24 250mm VP191(POWER)	1
53	M-MS-0808-8239	51.00014.001	FILAMENT TAPE 3M NO.897 25mm*45M	0.003
54	M-MS-0808-9552	51.61217.001	MYLAR PROTECT FILM 400*315 0.1t	1
55	PL-PD-0714-0064	52.00003.001	RUBBER FOOT 25*10*1.2t	1
56	M-MS-0808-9911	51.61220.001	PE BAG LDPE 150*65*0.04t mm VP171/191 Series	2
57	M-MS-0808-9554	52.61202.001	SPACER RUBBER ADHESIVE 20*10*5(h)mm VP191	2
58	PL-PD-0714-0063	52.57503.002	RUBBER FOOT 35*10*2t VX2000	1
59	P-BX-0601-1083	51.61218.002	PC 30*12*0.65t mm VP191F	4
60	P-BX-0601-1082	51.61218.003	PC 20*12*1.0t mm VP191F	1
61	M-LB-0830-0726	35.61205.001	HI-POT TEST LABLE F 10mm VP191/191b	1

PACKING FOR SHIPPING



PACKING PART LIST (VP912s-1)

ViewSonic Model Number: VLCDS2597

Rev: 1b

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	M-LB-0813-0706	35.58203.001	LABEL CARTON 76*76mm	1
2	A-CD-VP912B	36.61202.005	USER GUIDE+CD VP912b (AU EN04V1)	1
3	A-PC-0106-0272	42.50115.001	CABLE POWER CORD 1830mm SP30+IS14	1
4	M-MS-0808-9911	51.61220.001	PE BAG LDPE 150*65*0.04t mm VP171/191 Series	1
5	CB-00000183	42.59910.A01	CABLE VGA 15P 1800mm 2*75mm 2-CORE	1
6	A-VC-0101-0262	42.59902.012	CABLE DVI-D 1.8M 2-CORE MOLEX	1
7	P-00000334	51.00081.009	PE BAG LDPE 570*850*0.1t W/HOLE	1
8	M-MS-0808-9552	51.61217.001	MYLAR PROTECT FILM 400*315 0.1t	1
9	P-00001414	55.61201.008	CARTON AB-18 490*265*440 VP912b W/GM5321	1
10	P-FM-0602-0579	56.61201.001	CUSHION R EPS VP191	1
11	P-FM-0602-0580	56.61202.001	CUSHION L EPS VP191	1
12	VP912b	DC.61214.003	D.C. AUO M190EN04 V4 W/GM5321 CS-VS08 VP912b	1

A. Packing Procedure

1.1 Turn the power switch to the "OFF" position. (Figure 1)

1.2 Apply 25mm tape to the power switch. (Figure 2)

1.3 Apply protective film to protect the monitor face. (Figure 3)

1.4 Put the monitor in the PE bag and seal the bag with tape. (Figure 4)

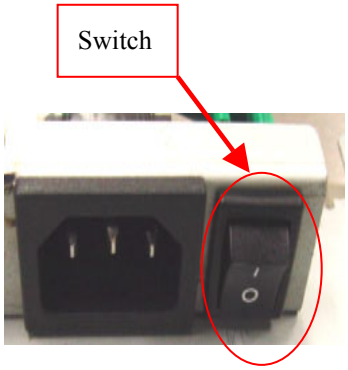


Figure 1

Figure 2

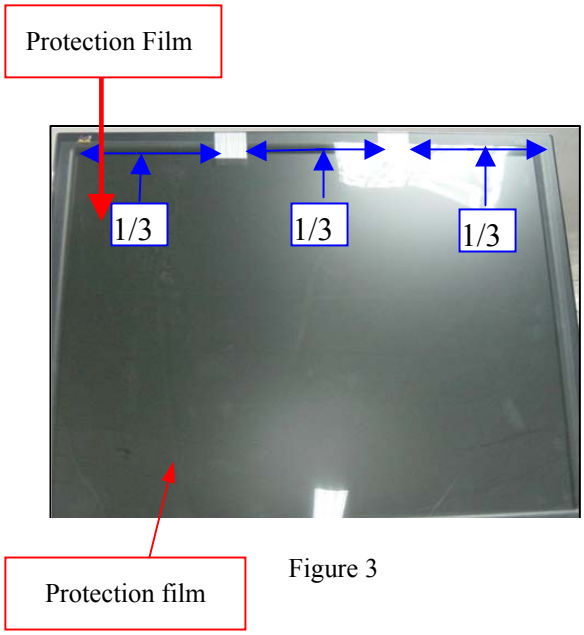


Figure 3

Figure 4

1.5 Put the cushions on the monitor. (Figure 5)

1.6 Place the monitor into the carton and then put all the accessories (1.VGA cable. 2.DVI-D cable. 3.user guide +CD. 4. power cord) into the carton. At last, close the carton and seal it with tape. (Figure 6)

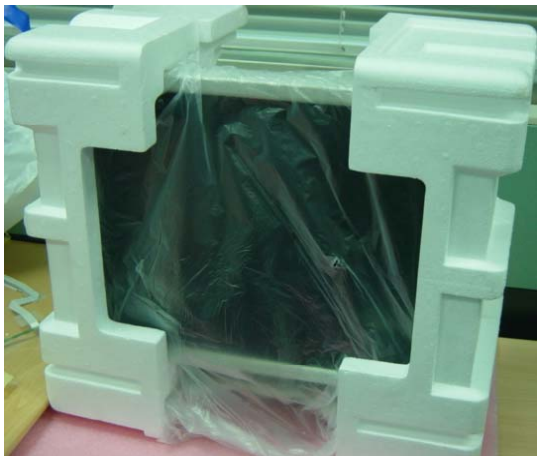


Figure 5

Figure 6

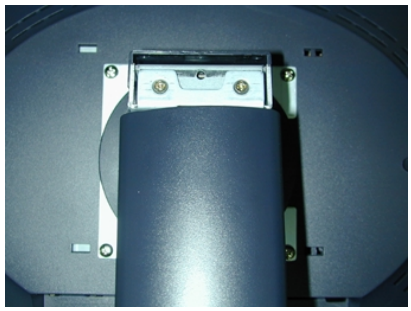
B. Disassembly Procedure

The Front View

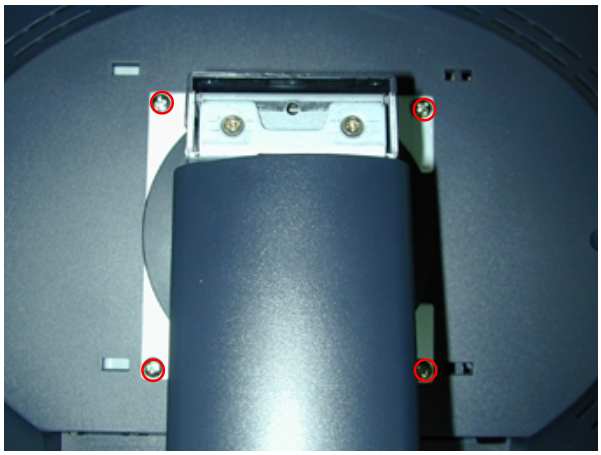
The Rear View

1. Disassembly of Stand unit from Monitor

1.1 Put the monitor facedown. Take off Oval Cap and pry Hinge Cap off.



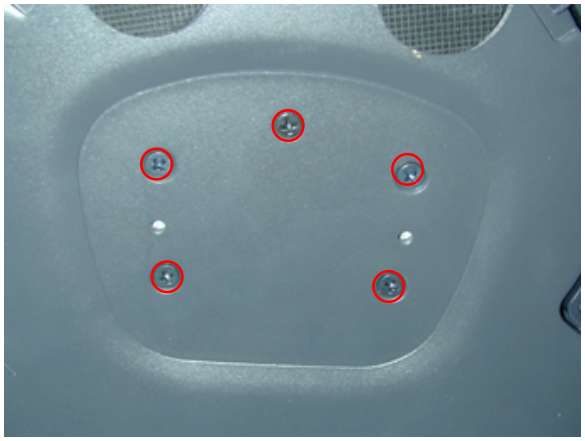
1.2 Unscrew four screws which secure Stand Unit and detach Stand from Panel Unit.

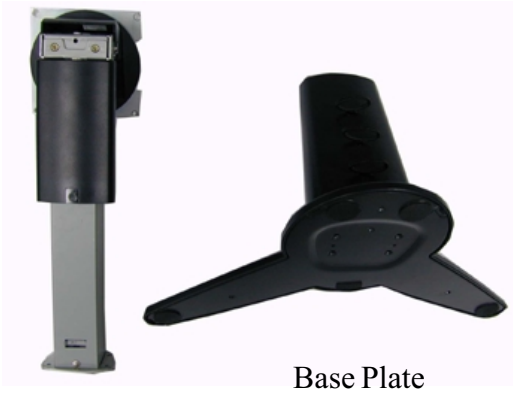


Panel Unit

Stand

1.3 Unscrew five screws of Base Plate to remove Base Plate from Hinge.





Base Plate

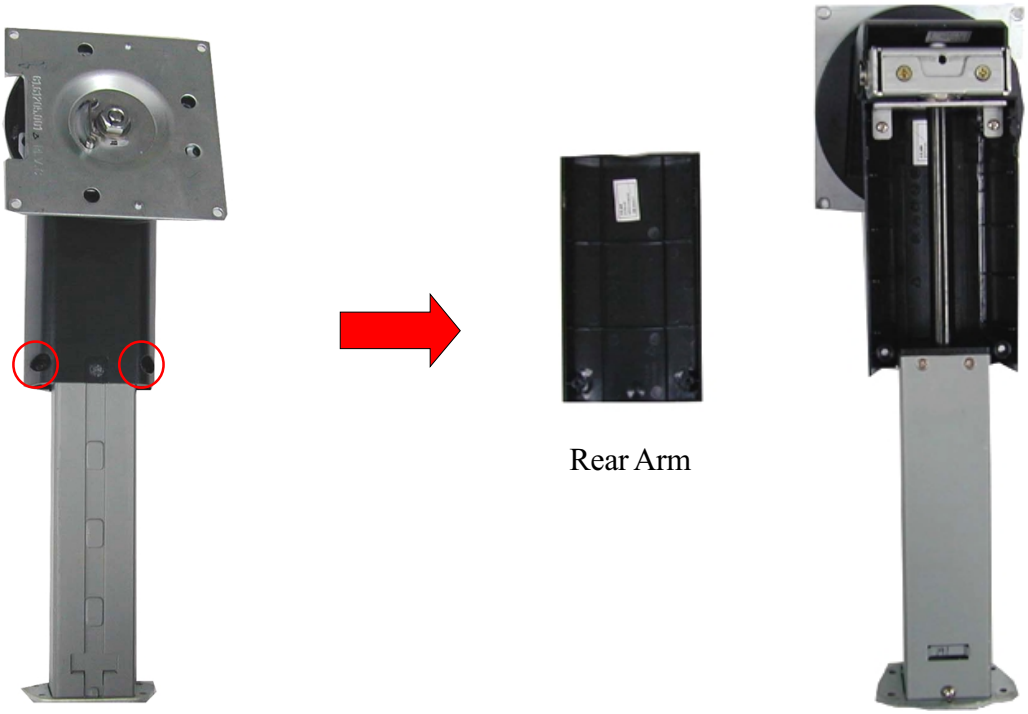
Hinge

1.4 Unscrew three screws that secure Base Plate to separate Base Plate from Base Cover.

Base Cover

Base Plate

1.5 Unscrew two screws that secure Rear Arm to separate Rear Arm from Hinge.



Rear Arm

Hinge

1.6 Turn Hinge and unscrew two screws that secure Front Arm to detach Front Arm from Hinge.

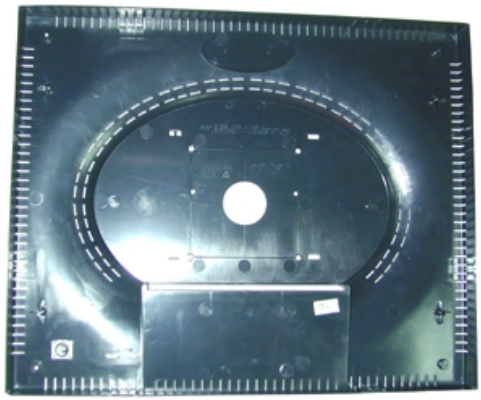
Hinge

Front Arm

C. Disassembly of Rear Cover

1. Unscrew four screws of Rear Cover, and then detach LCD Panel module from Rear Cover.

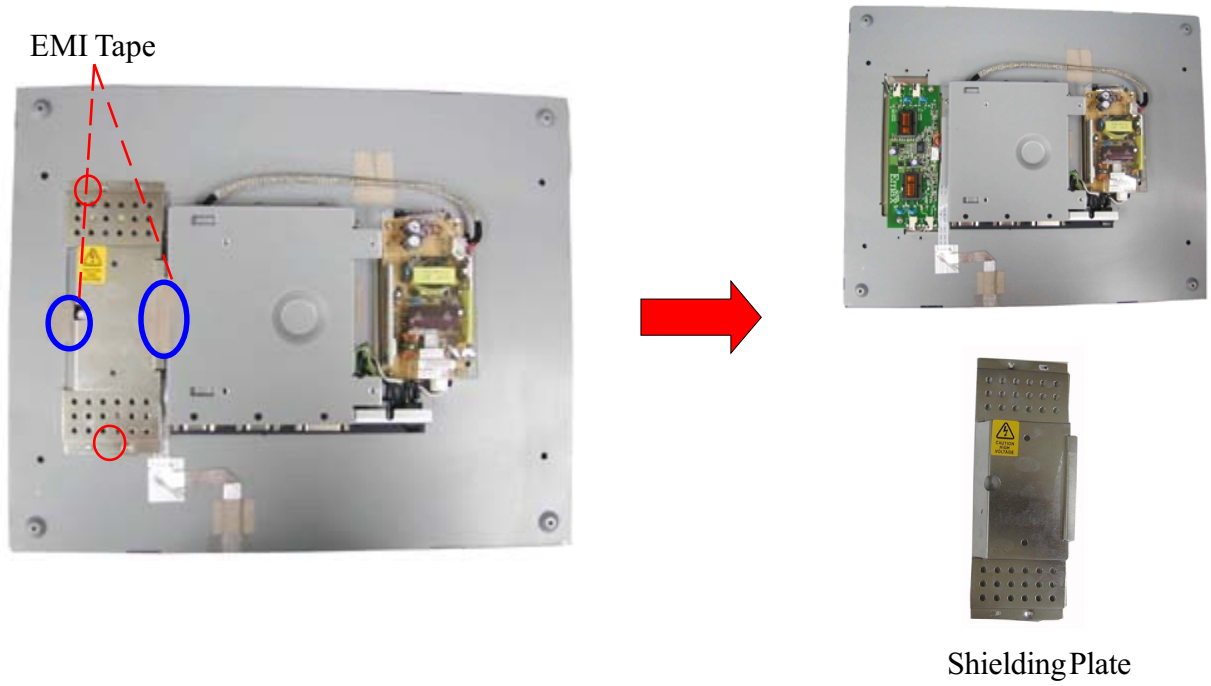
LCD Panel Module



Rear Cover

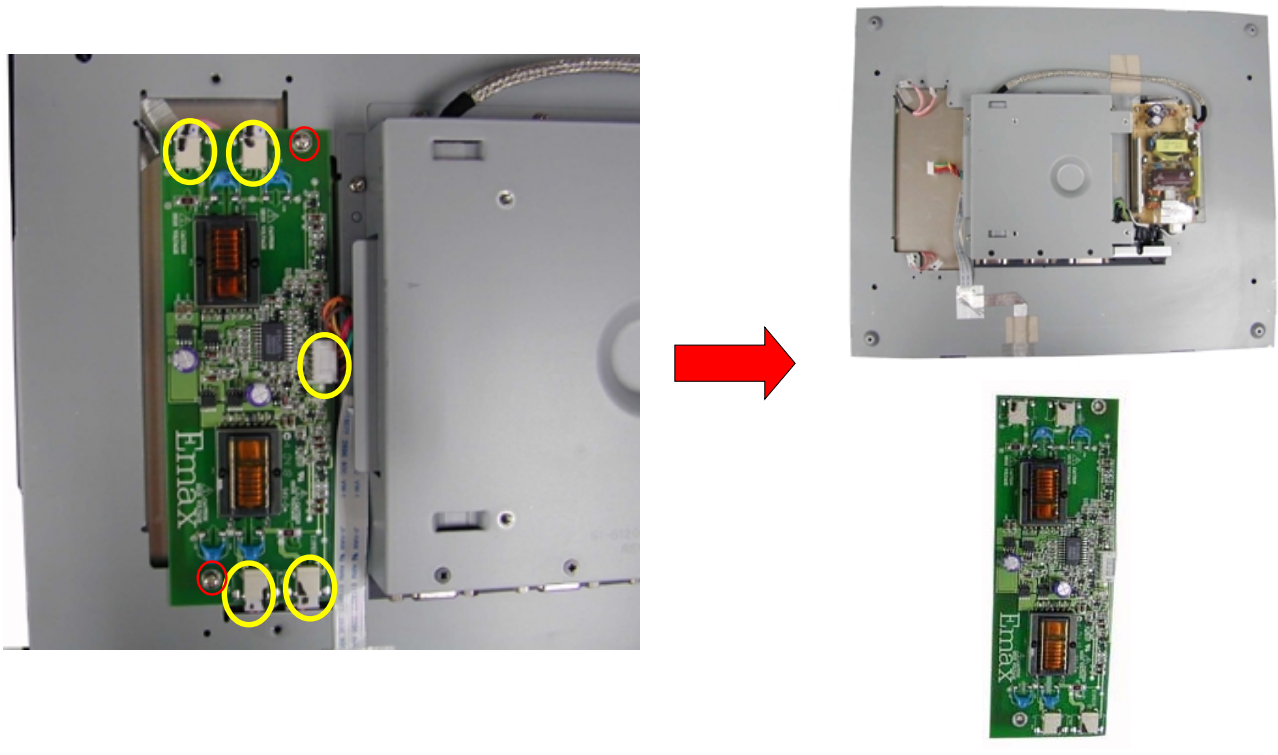
D. Disassembly of Inverter Board, Main Board and Power Board

1. Unscrew two screws that secure Shielding Plate and remove Shielding Plate.

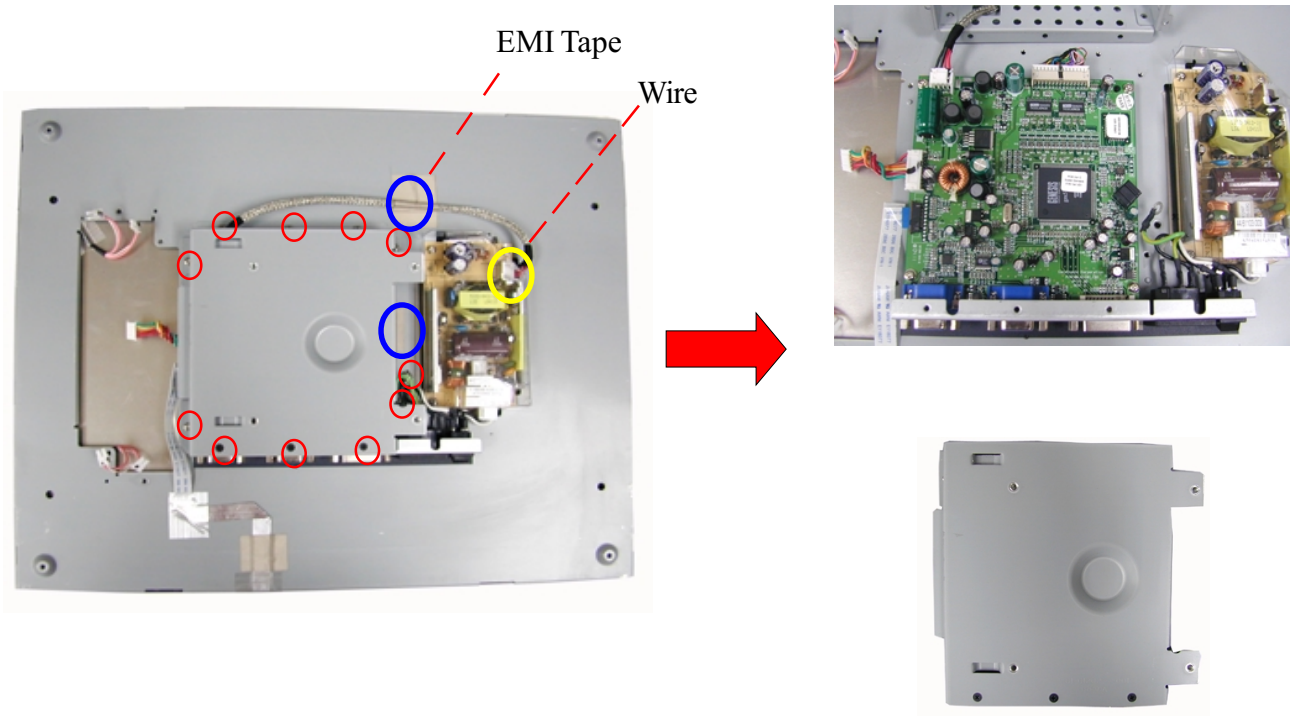


Note: EMI tape cannot be reused; please apply new EMI tape in the original position.

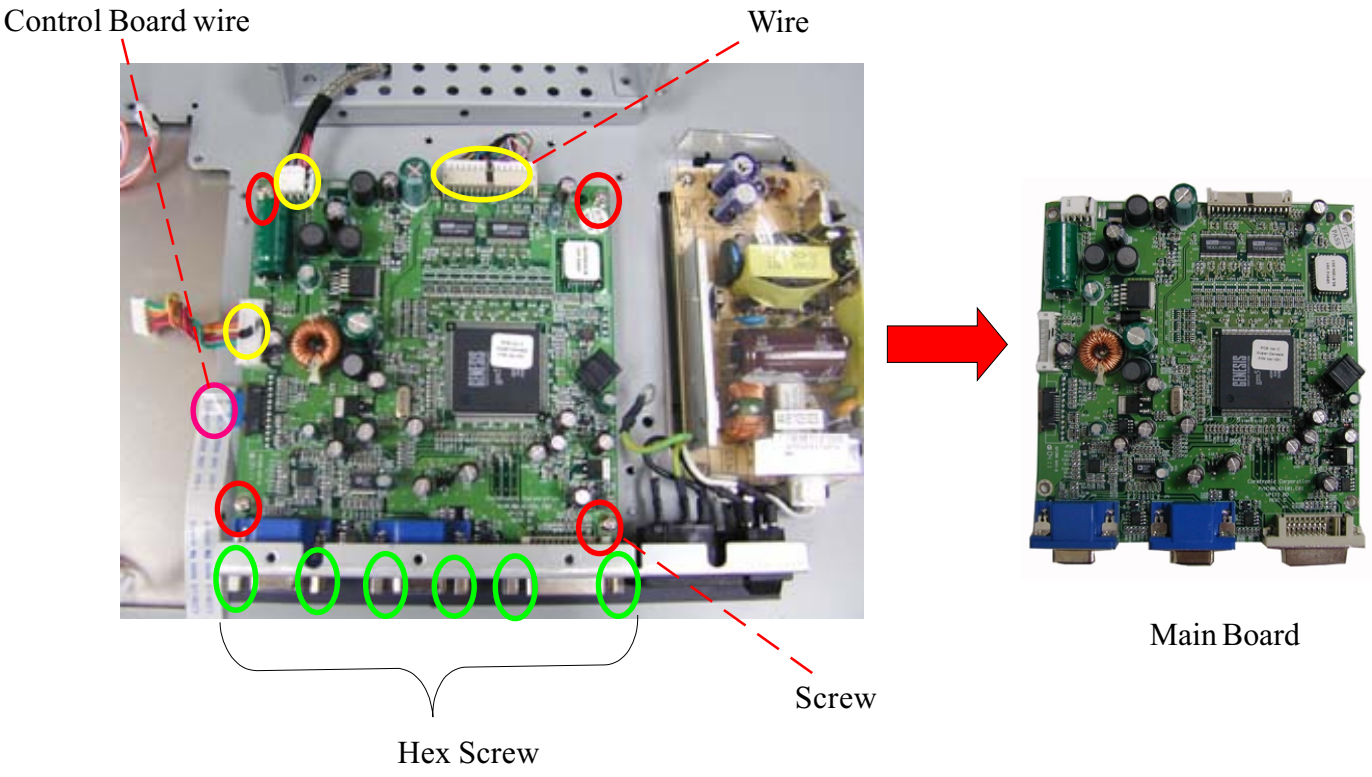
2. Unscrew two screws and uplug five wires to remove Inverter Board.



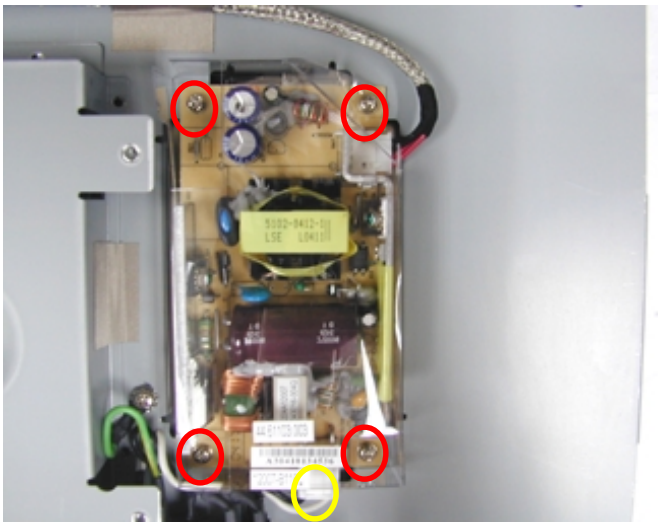
3. Unscrew eleven screws that secure M/B Shielding Bracket, two pieces of EMI tape and uplug one wire to remove M/B Shielding Bracket.



4. Unscrew six hex screws and four screws that secure Main Board, unplug three wires and disconnect the Control Board wire to remove Main Board.



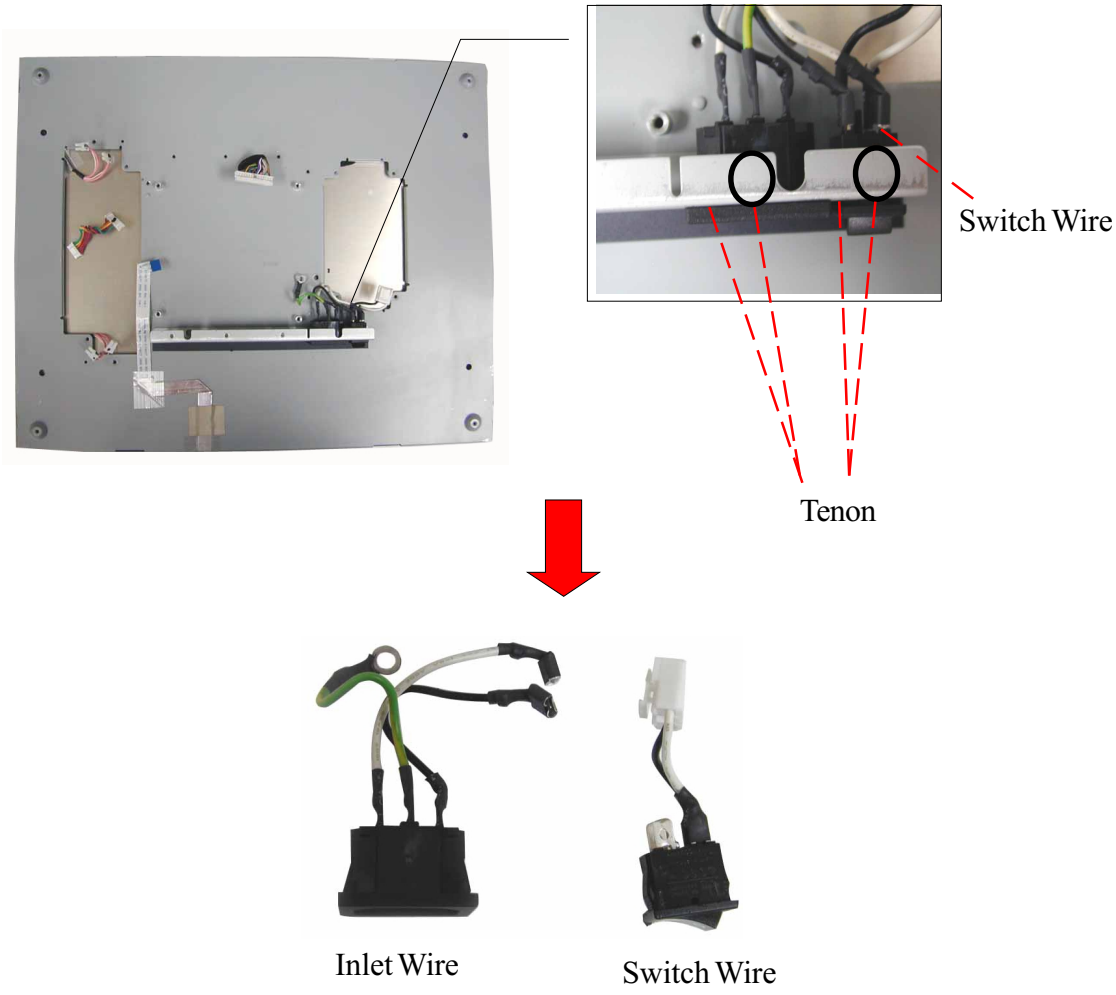
5. Unscrew four screws that secure Power Board and unplug one wire to remove Power Board.



Power Board with Mylar

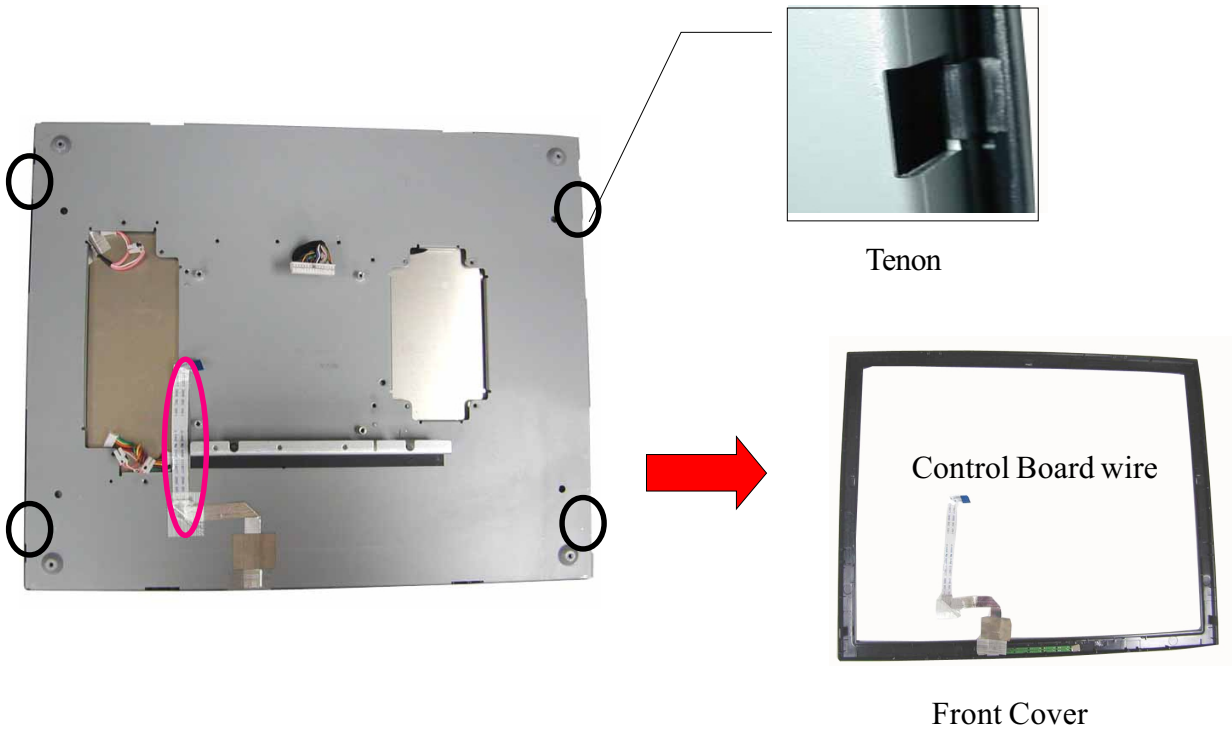
E. Disassembly of Switch and Inlet Wires

1. Disconnect two wires that are connected to Switch Wire and press four tenons that secure Switch wire and Inlet Wire and use flat screw driver to pull and press out Inlet and Switch Wires.

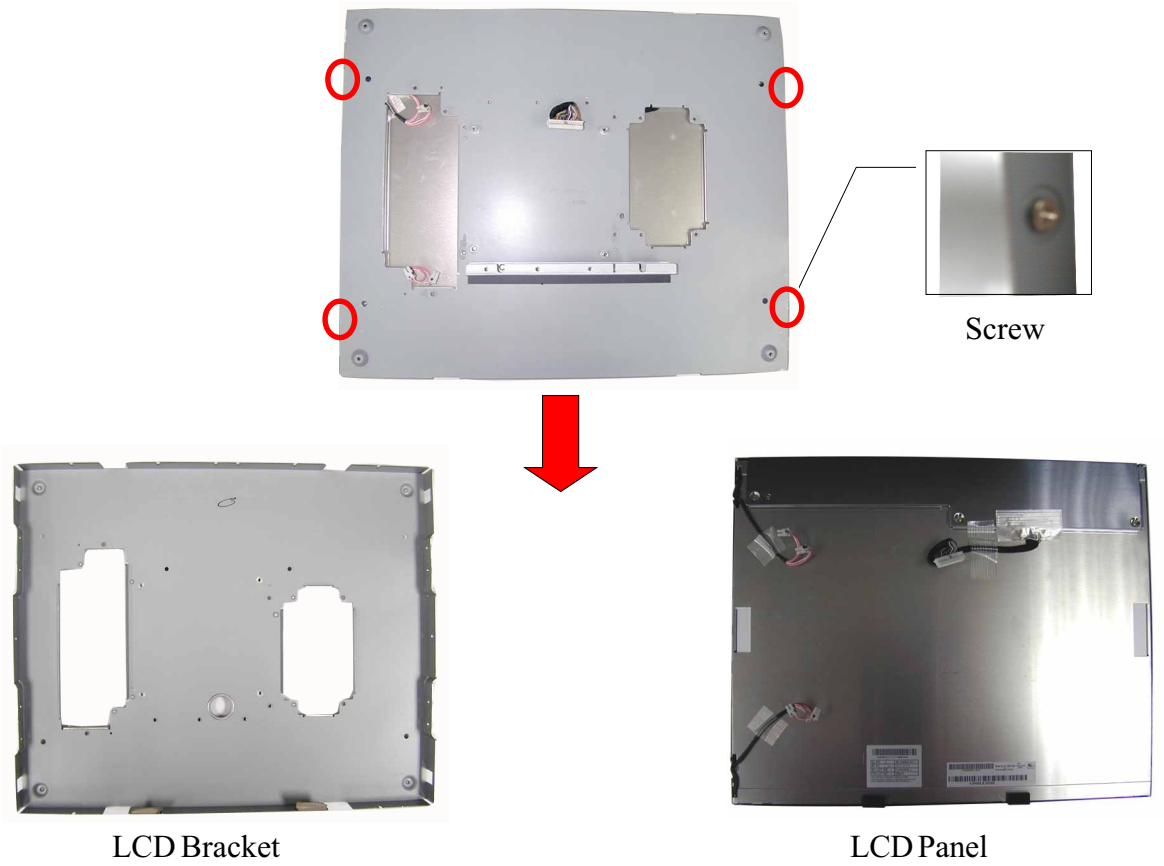


F. Disassembly of Front Cover Module and LCD Panel

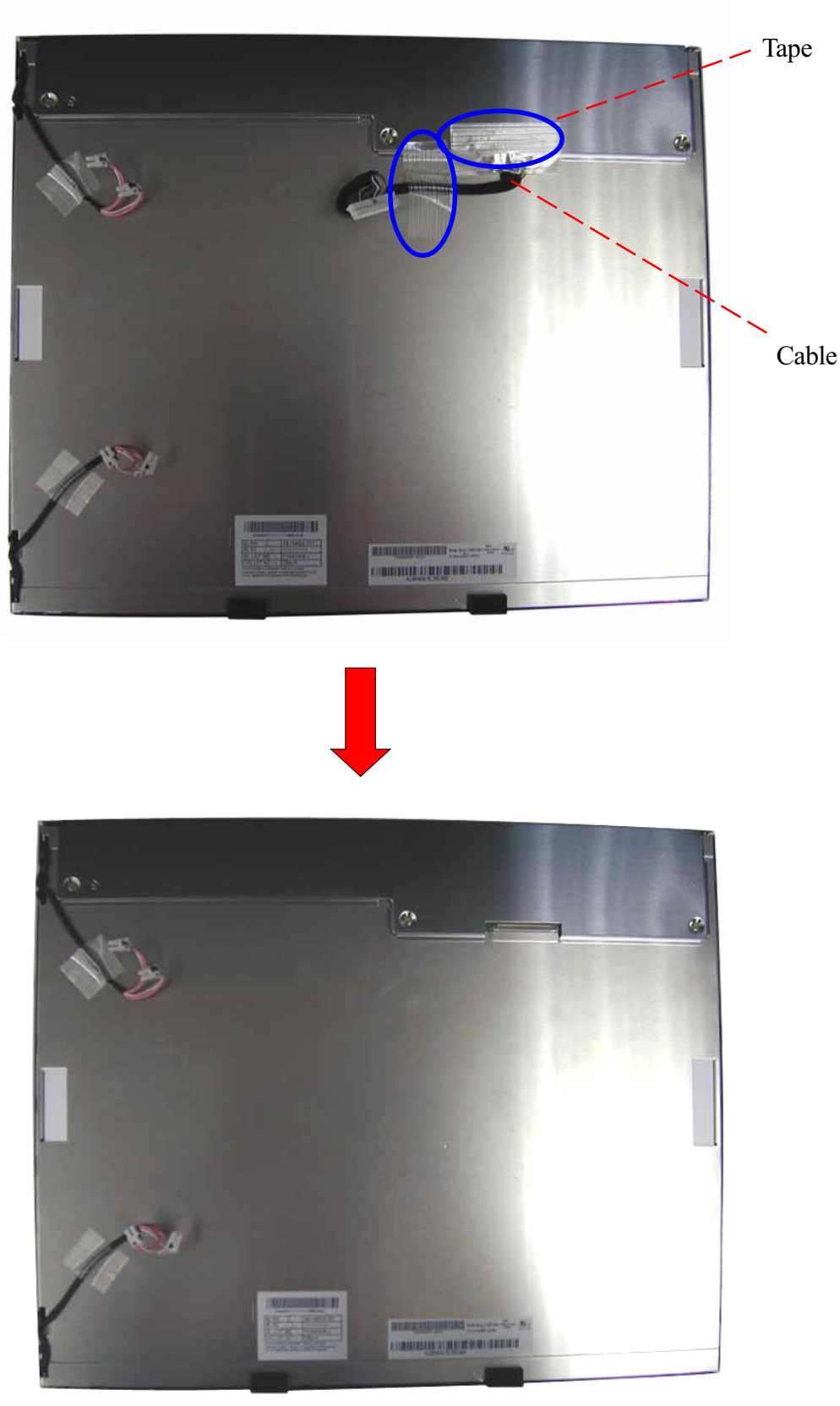
1. Tear off Control Board wire and press four tenons to remove Front Cover from LCD Panel.



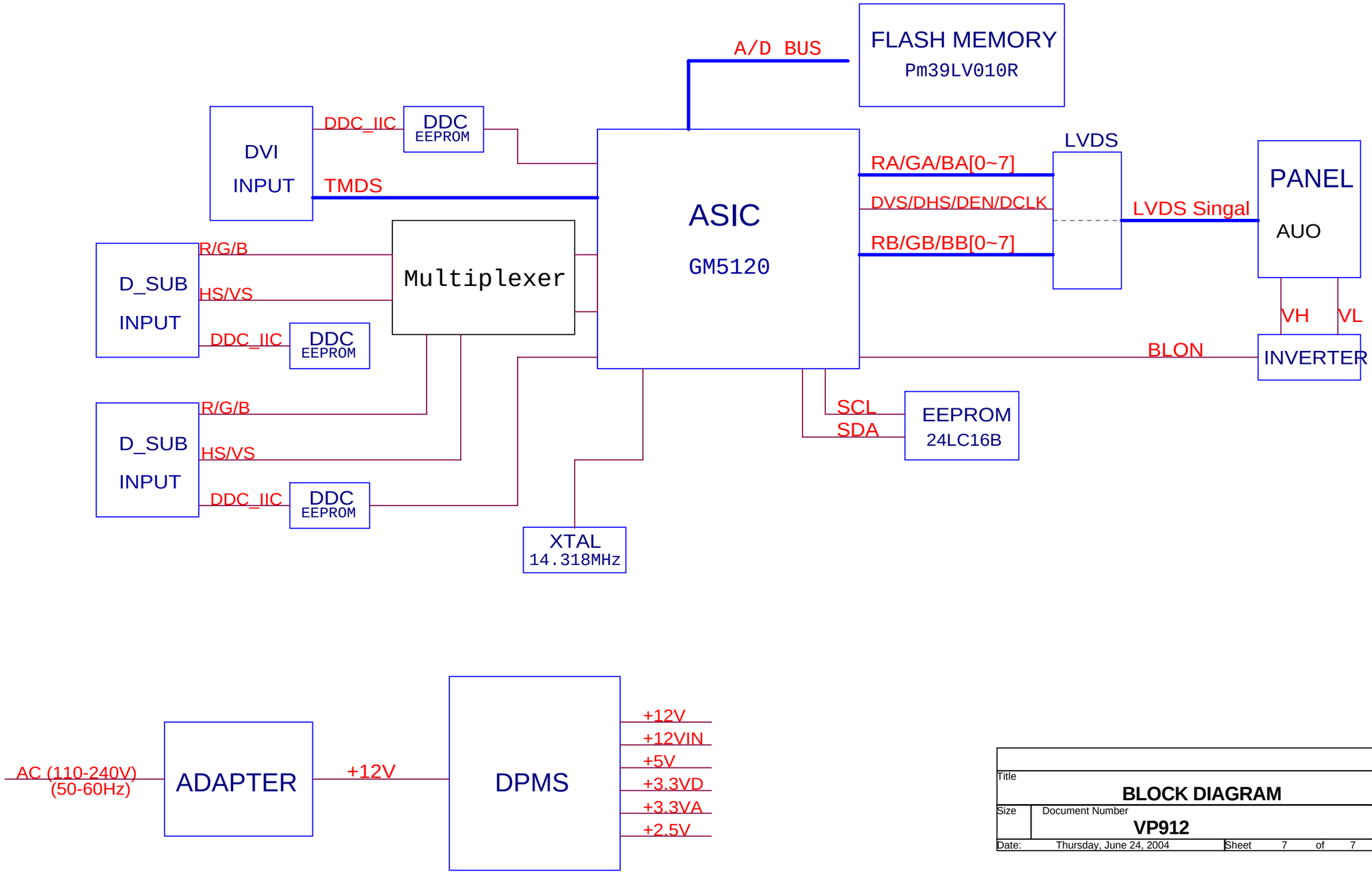
2. Unscrew four screws beside LCD Bracket to detach LCD Panel from LCD Bracket.



3. Tear off two pieces of tape to remove one cable.

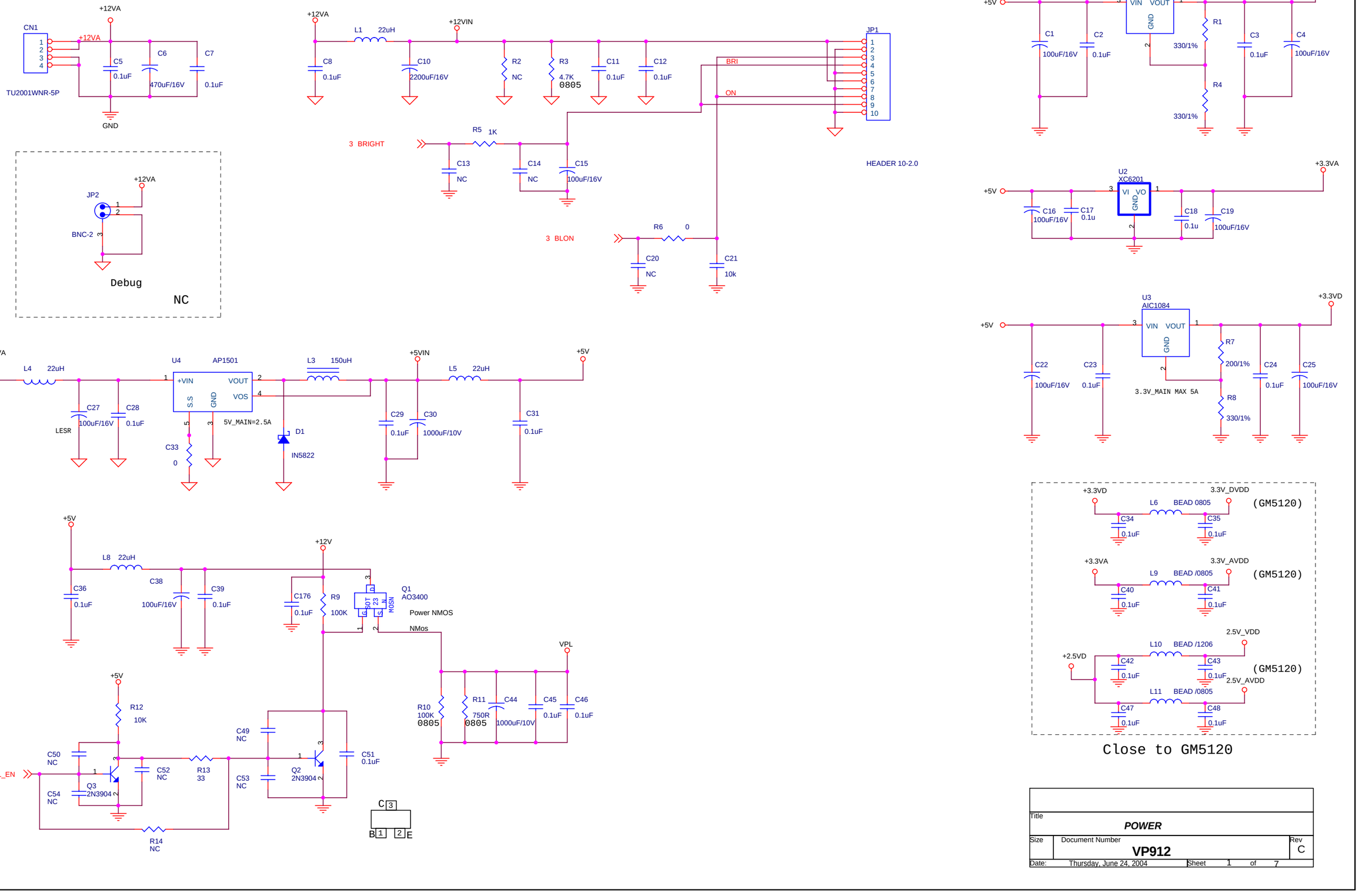


9. Block Diagram

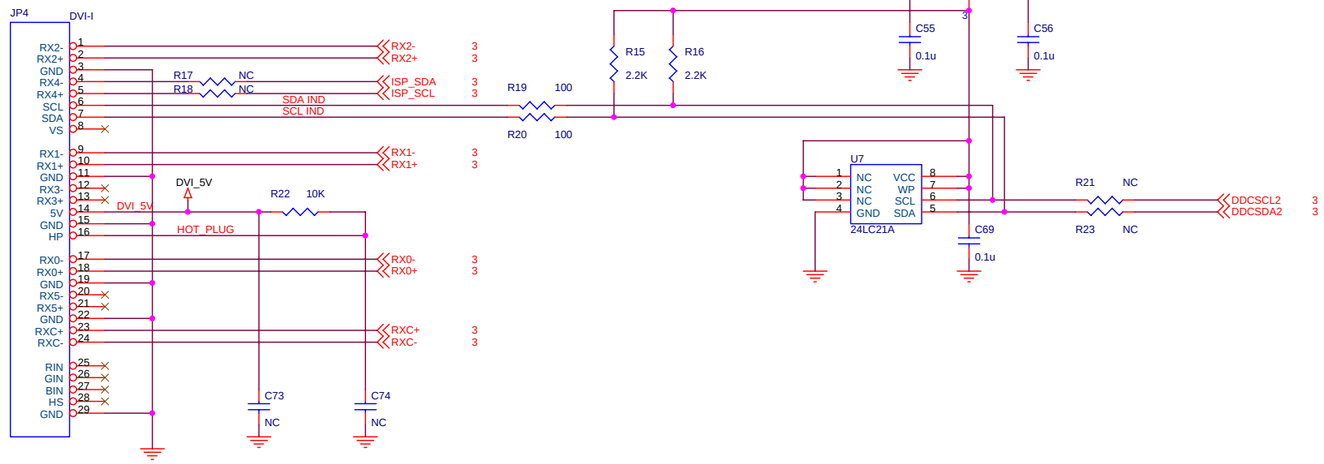


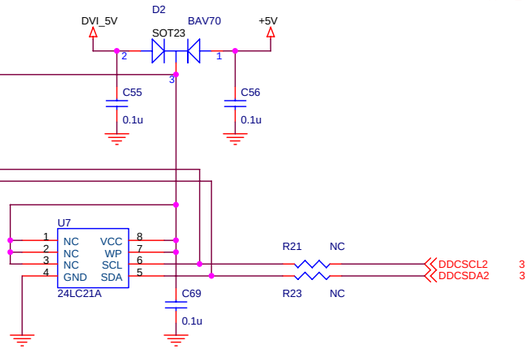
Title	BLOCK DIAGRAM	
Size	Document Number: VP912	Rev: C
Date: Thursday, June 24, 2004	Sheet 7 of 7	

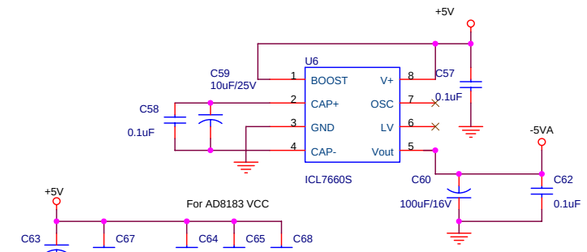
10. Schematic Diagrams

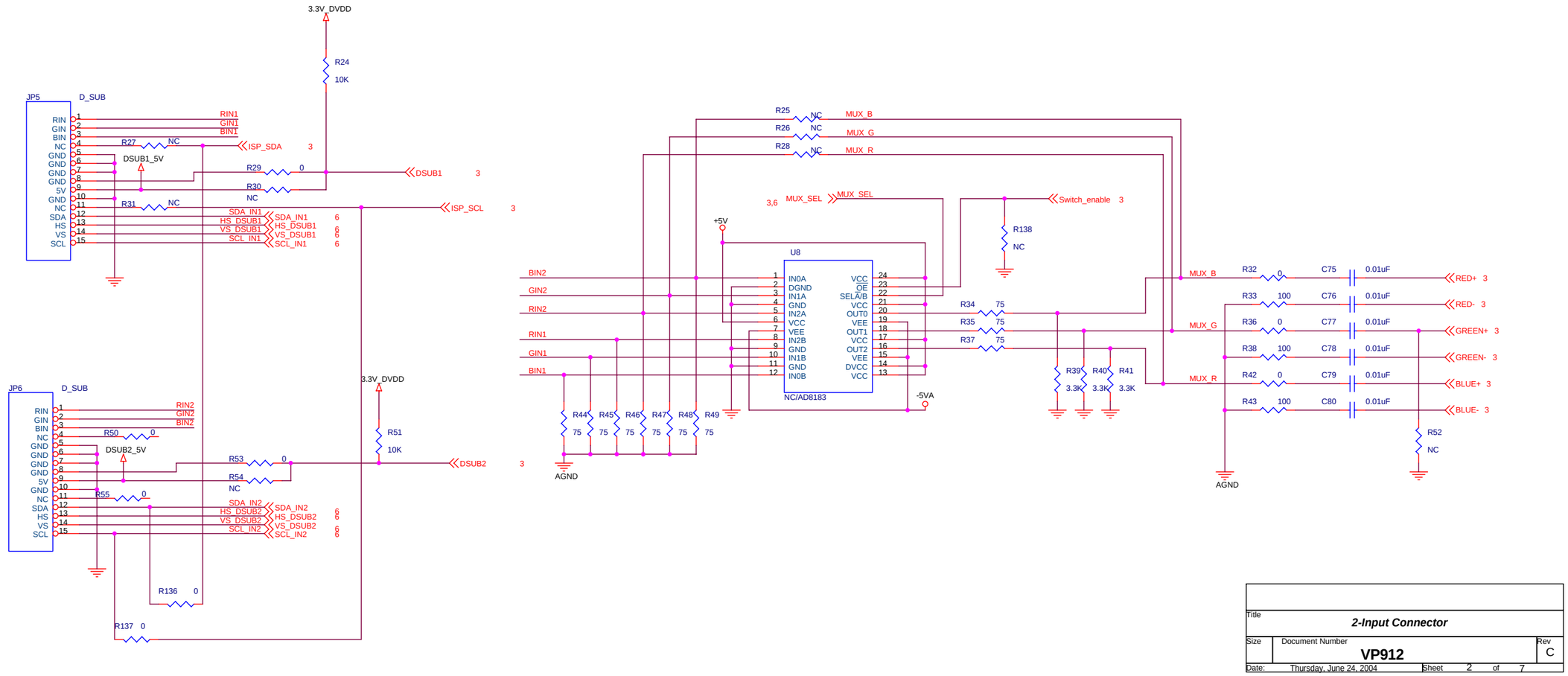


DVI CONNECTOR

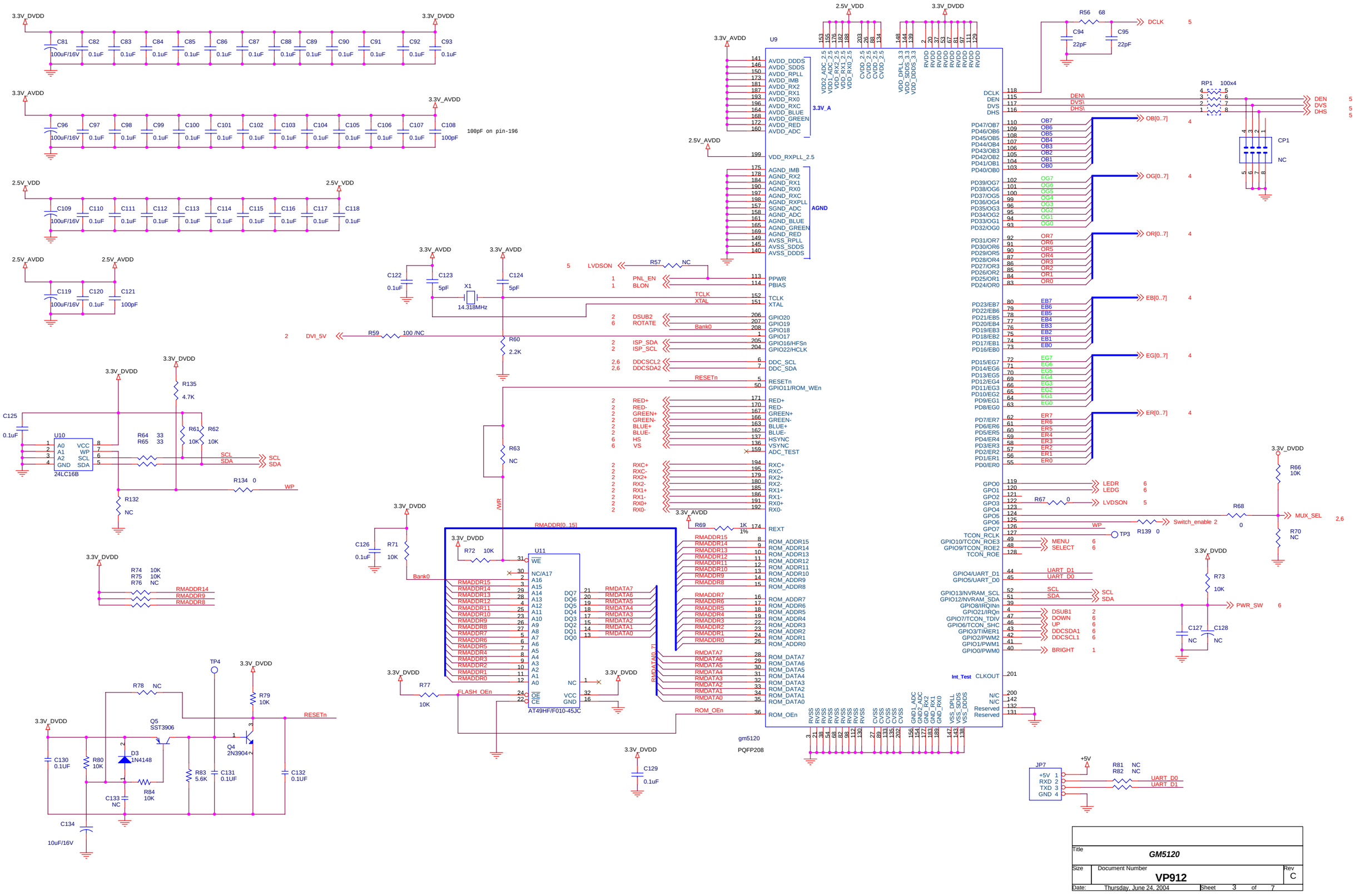








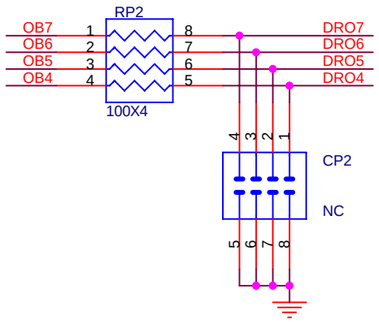
Title	*2-Input Connector*	
Size	Document Number **VP912**	Rev C
Date: Thursday, June 24, 2004	Sheet 2 of 7	

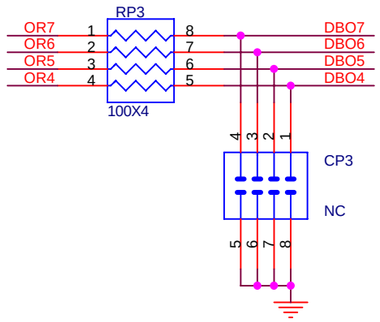


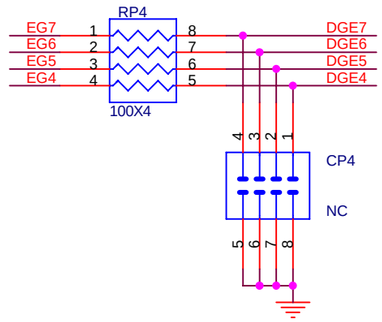
Title	*GM5120*		
Size	Document Number **VP912**		Rev C
Date: Thursday, June 24, 2004	Sheet 3 of 7		

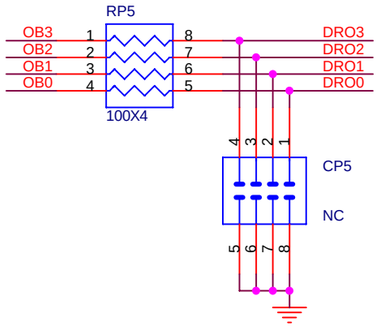
3 OB[0..7] OB[0..7]
3 OG[0..7] OG[0..7]
3 OR[0..7] OR[0..7]
3 EB[0..7] EB[0..7]
3 EG[0..7] EG[0..7]
3 ER[0..7] ER[0..7]

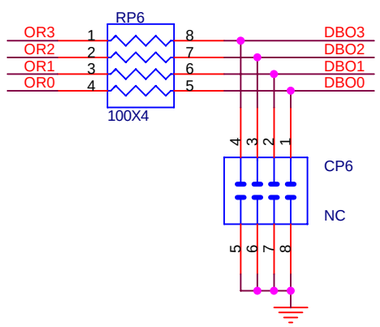
DRO[0..7] DRO[0..7] 5
DGO[0..7] DGO[0..7] 5
DBO[0..7] DBO[0..7] 5
DRE[0..7] DRE[0..7] 5
DGE[0..7] DGE[0..7] 5
DBE[0..7] DBE[0..7] 5

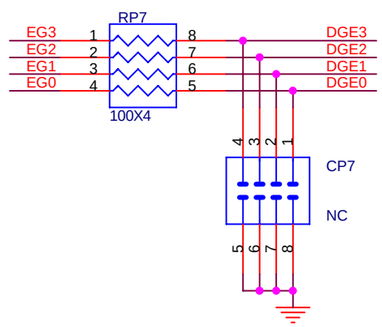


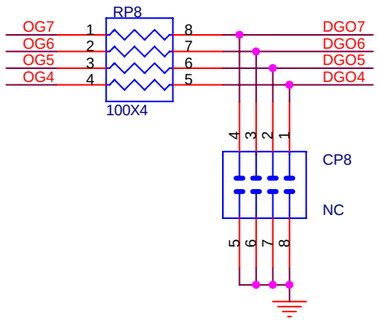


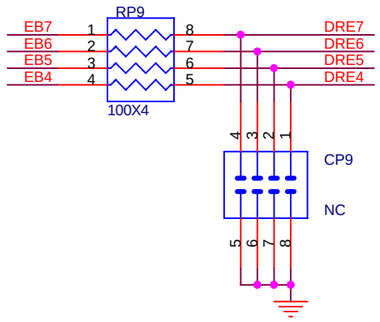


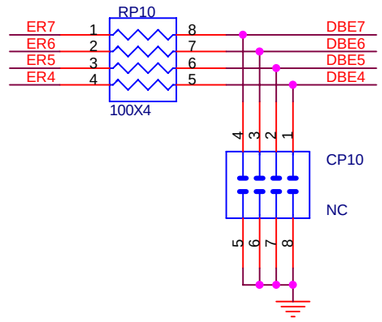


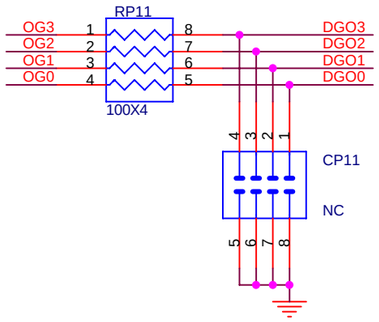


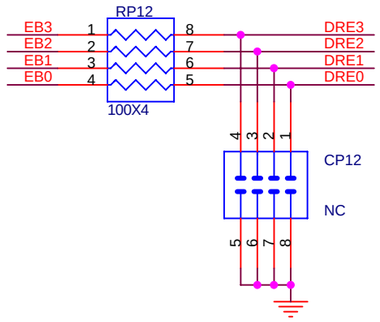


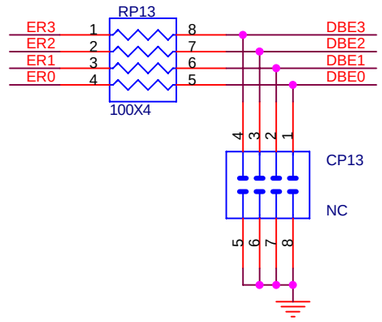




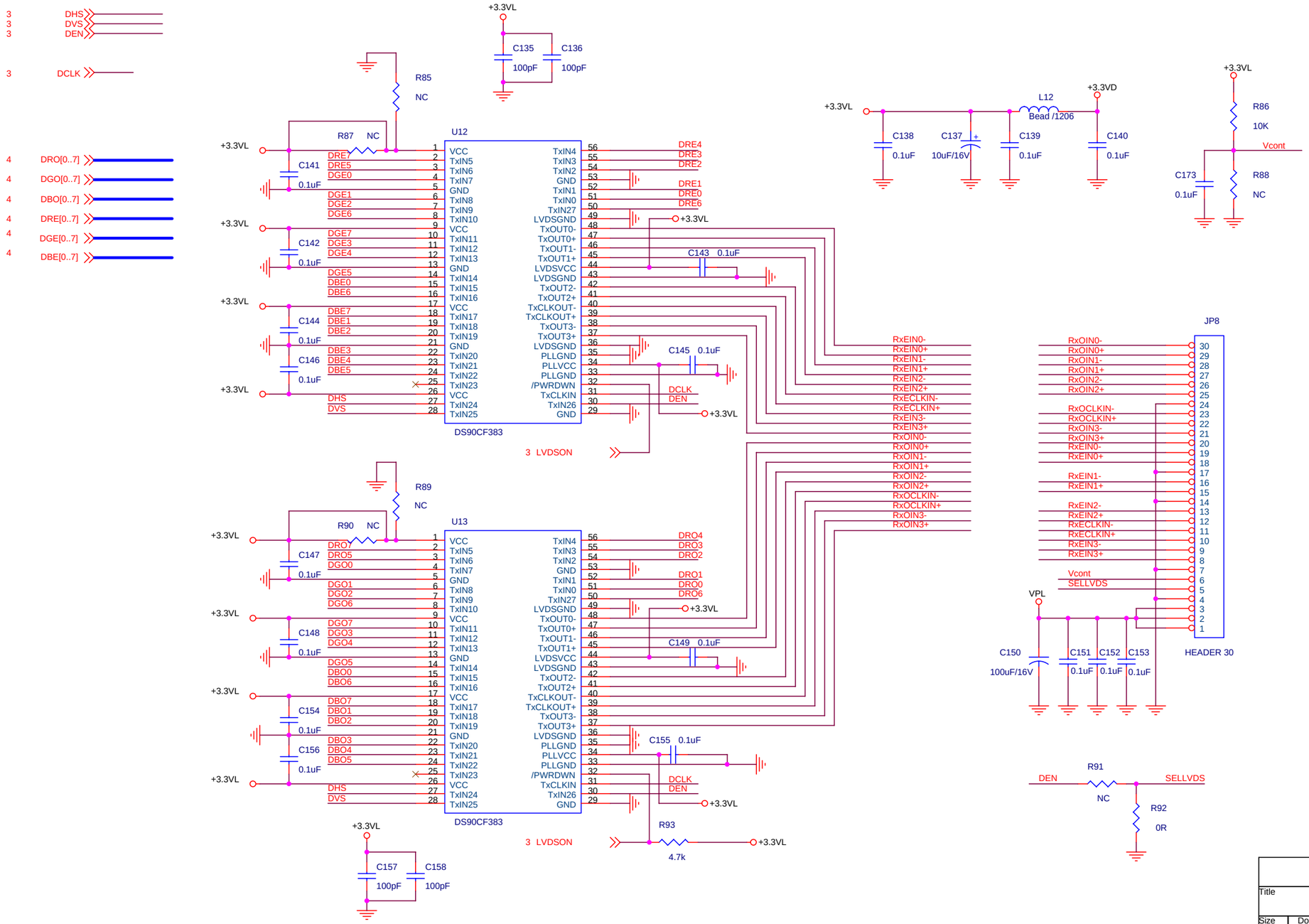


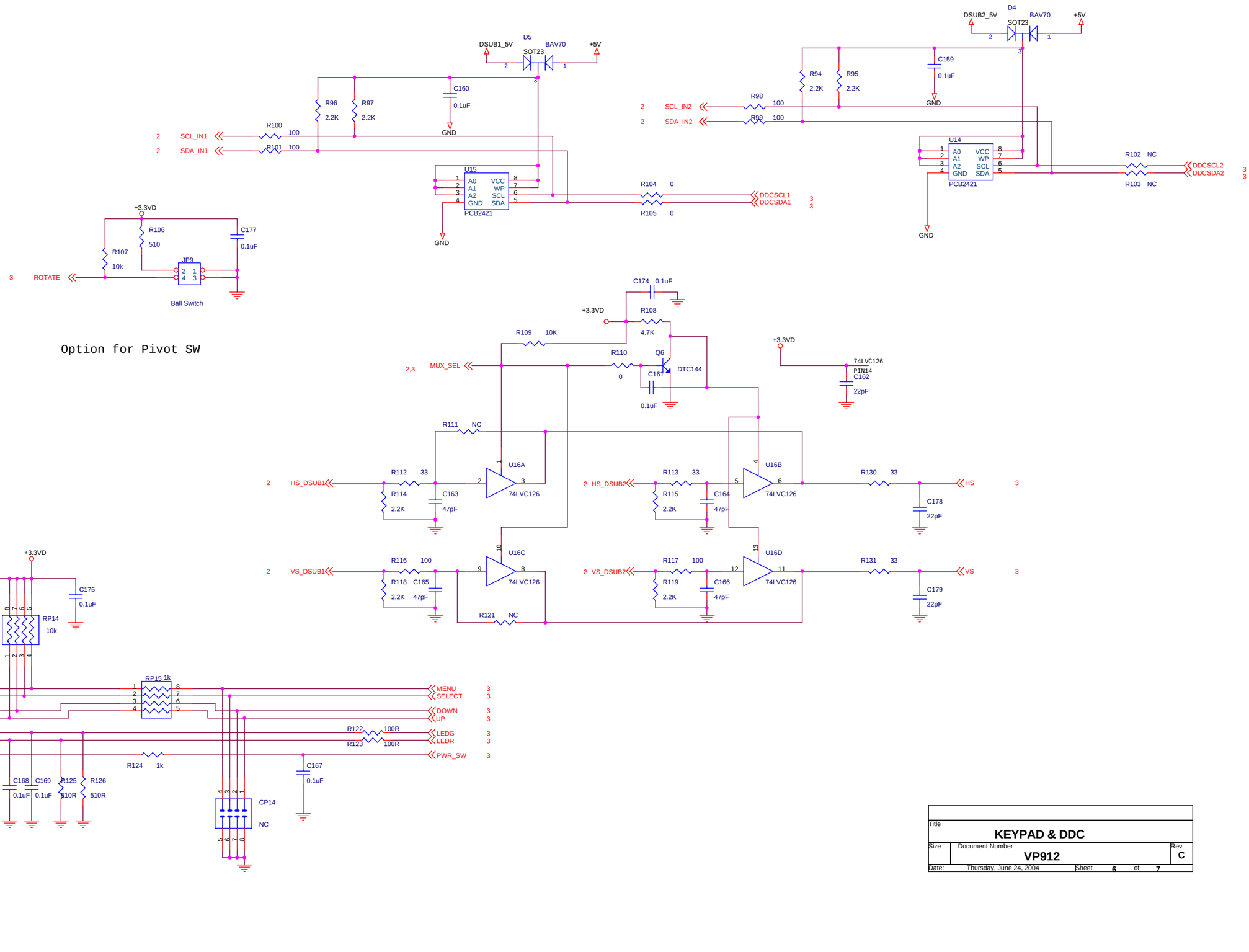




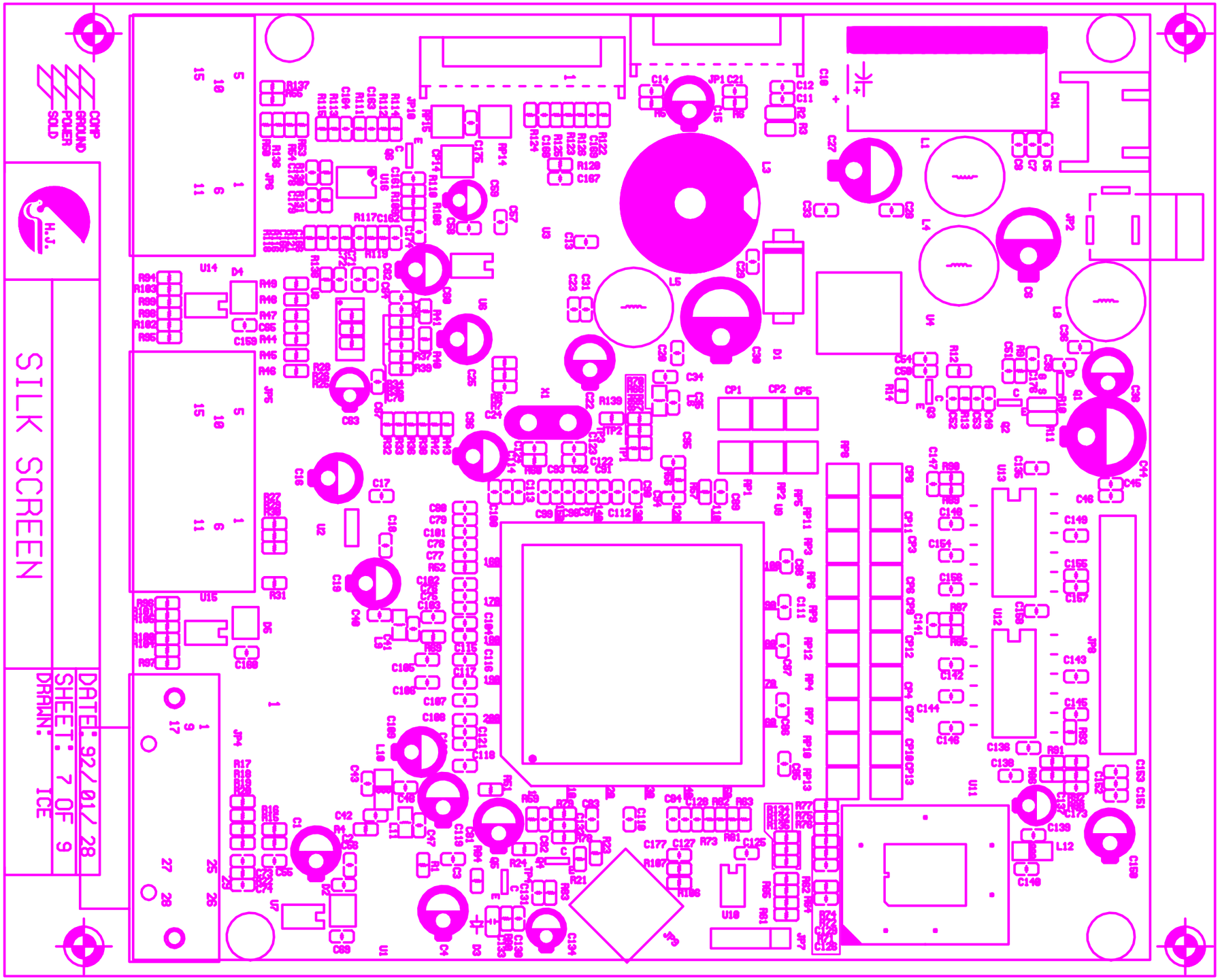


Title	*OUTPUT INTERFACE*	
Size	Document Number **VP912**	Rev C
Date: Thursday, June 24, 2004	Sheet 4 of 7	


3 DHS
3 DVS
3 DEN
3 DCLK
4 DRO[0..7]
4 DGO[0..7]
4 DBO[0..7]
4 DRE[0..7]
4 DGE[0..7]
4 DBE[0..7]
+3.3VL
C135 100pF
C136 100pF
R85 NC
R87 NC
U12
DS90CF383
C141 0.1uF
C142 0.1uF
C144 0.1uF
C146 0.1uF
C143 0.1uF
C145 0.1uF
DRE7 DRE5 DGE0 DGE1 DGE2 DGE6
DGE7 DGE3 DGE4 DGE5 DBE0 DBE6
DBE7 DBE1 DBE2 DBE3 DBE4 DBE5
DHS DVS
DRE4 DRE3 DRE2 DRE1 DRE0 DRE6
DCLK DEN
3 LVDSON
R89 NC
R90 NC
U13
C147 0.1uF
C148 0.1uF
C154 0.1uF
C156 0.1uF
C149 0.1uF
C155 0.1uF
DRO7 DRO5 DGO0 DGO1 DGO2 DGO6
DGO7 DGO3 DGO4 DGO5 DBO0 DBO6
DBO7 DBO1 DBO2 DBO3 DBO4 DBO5
DHS DVS
DRO4 DRO3 DRO2 DRO1 DRO0 DRO6
DCLK DEN
3 LVDSON
R93 4.7k
C157 100pF
C158 100pF
+3.3VD
L12 Bead /1206
C138 0.1uF
C137 10uF/16V
C139 0.1uF
C140 0.1uF
R86 10K
Vcont
C173 0.1uF
R88 NC
JP8
HEADER 30
RxEIN0- RxEIN0+ RxEIN1- RxEIN1+ RxEIN2- RxEIN2+ RxECLKIN- RxECLKIN+ RxEIN3- RxEIN3+
RxOIN0- RxOIN0+ RxOIN1- RxOIN1+ RxOIN2- RxOIN2+ RxOCLKIN- RxOCLKIN+ RxOIN3- RxOIN3+
RxEIN0- RxEIN0+ RxEIN1- RxEIN1+ RxEIN2- RxEIN2+ RxECLKIN- RxECLKIN+ RxEIN3- RxEIN3+
Vcont SELLVDS
VPL
C150 100uF/16V
C151 0.1uF
C152 0.1uF
C153 0.1uF
DEN SELLVDS
R91 NC
R92 0R
Title: LVDS CONNECTOR
Size
Document Number: VP912
Rev: C
Date: Thursday, June 24, 2004
Sheet 5 of 7


DSUB1_5V
D5
SOT23
BAV70
+5V
DSUB2_5V
D4
SCL_IN1
SDA_IN1
SCL_IN2
SDA_IN2
R96 2.2K
R97 2.2K
R94 2.2K
R95 2.2K
R100 100
R101 100
R98 100
R99 100
C160 0.1uF
C159 0.1uF
GND
U15
U14
A0 A1 A2 GND VCC WP SCL SDA
PCB2421
R104 0
R105 0
DDCSCL1
DDCSDA1
R102 NC
R103 NC
DDCSCL2
DDCSDA2
+3.3VD
R106 510
R107 10k
C177 0.1uF
JP9
ROTATE
Ball Switch
Option for Pivot SW
C174 0.1uF
R108 4.7K
R109 10K
R110 0
Q6
DTC144
C161 0.1uF
MUX_SEL
74LVC126
PIN14
C162 22pF
R111 NC
U16A
U16B
U16C
U16D
HS_DSUB1
HS_DSUB2
VS_DSUB1
VS_DSUB2
R112 33
R113 33
R130 33
R114 2.2K
C163 47pF
R115 2.2K
C164 47pF
C178 22pF
HS
R116 100
R117 100
R131 33
R118 2.2K
C165 47pF
R119 2.2K
C166 47pF
C179 22pF
VS
R121 NC
(KEYPAD)
JP10
HEADER 12-2.0
KMENU
KSELECT
KDOWN
KUP
KLEDG
KLEDR
KPWR
RP14 10k
RP15 1k
R120 NC
C175 0.1uF
C168 0.1uF
C169 0.1uF
R125 510R
R126 510R
R124 1k
R122 100R
R123 100R
C167 0.1uF
CP14
NC
MENU
SELECT
DOWN
UP
LEDG
LEDR
PWR_SW
JP11
SMD
Title
KEYPAD & DDC
Size
Document Number
VP912
Rev
C
Date: Thursday, June 24, 2004
Sheet 6 of 7

11. PCB Layout Diagrams



Reader's Response

Dear Readers:

Thank you in advance for your feedback on our Service Manual, which allows continuous improvement of our products. We would appreciate your completion of the Assessment Matrix below, for return to ViewSonic Corporation.

Assessment

A. What do you think about the content of the **VP912s/b** Service Manual?

Unit	*Excellent*	*Good*	*Fair*	*Bad*
1. Precautions and Safety Notices				
2. Specification				
3. Front Panel Function Control Description				
4. Circuit Description				
5. Adjustment Procedure				
6. Troubleshooting Flow Chart				
7. Recommended Spare Parts List				
8. Exploded Diagram and Spare Parts List				
9. Block Diagram				
10. Schematic Diagrams				
11. PCB Layout Diagrams				

B. Are you satisfied with the **VP912s/b** Service Manual?

Item	*Excellent*	*Good*	*Fair*	*Bad*
1. Service Manual Content				
2. Service Manual Layout				
3. The form and listing				

C. Do you have any other opinions or suggestions regarding this service manual?

Reader's basic data:

Name:		Title:	
Company:			
Add.:			
Tel:		Fax:	
E-mail:			

After completing this form, please return it to ViewSonic Quality Assurance in the USA at facsimile 1-909-839-7943. You may also e-mail any suggestions to the Director, Quality Systems & Processes (marc.maupin@viewsonic.com)